ANNUAL CALENDAR

OF

McGILL COLLEGE

AND

UNIVERSITY

FOR SESSION 1894-95,

WITH

EXAMINATION PAPERS

FOR SESSION 1893-94.

MONTREAL:
PRINTED BY JOHN LOVELL & SON,
ST. NICHOLAS STREET.

1894.

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ANNUAL CALENDAR

OF

McGILL COLLEGE

AND

UNIVERSITY

MONTREAL

FOUNDED UNDER BEQUEST OF THE HON. JAMES McGILL,
ERECTED INTO A UNIVERSITY BY ROYAL CHARTER
IN 1821, AND RE-ORGANIZED BY AN
AMENDED CHARTER IN 1852.

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3/9/94

SESSION 1894–95

Montreal:
PRINTED FOR THE UNIVERSITY BY JOHN LOVELL & SON.

1894

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ADDENDA ET CORRIGENDA.

Partial Students are required to pay a fee of $2.00 for the use of the College grounds, unless they sign and send to the Dean of the Faculty a declaration of their intention not to use the grounds.

On page 18, line 16 from top, after the words "This ceases after 1895" should be added "except in cases of severe illness or domestic affliction."

The List of Graduates corrected to June, 1894, and the *Examination Papers* (price 75 cents) of the Session 1893–94, are published separately, and may be obtained on application to the Secretary, or through booksellers.

Governing Body of the University.

VISITOR:

HIS EXCELLENCY THE RIGHT HONOURABLE THE EARL OF ABERDEEN, M. A. (Oxon), P.C.

GOVERNOR-GENERAL OF CANADA, ETC.

GOVERNORS:

[*Being the Members of the Royal Institution for the Advancement of Learning.*]

THE HON. SIR DONALD A. SMITH, K.C.M.G., LL.D. (Hon. Cantab.), President and Chancellor of the University.
JOHN H. R. MOLSON, ESQ.
JOHN MOLSON, ESQ.
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CHARLES J. FLEET, ESQ., B.A., B.C.L.

(The Board of Governors has, under the Royal Charter, the power to frame Statutes, to make Appointments, and to administer the Finances of the University.)

PRINCIPAL.

(The Vice-Principal, during vacancy of the Principalship, discharges his duties.)
(The Principal has, under the Statutes, the general superintendence of all affairs of the College and University, under such regulations as may be in force.)

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HENRY T. BOVEY, M.A., D.C.L., LL.D., F.R.S.C., M.Inst.C.E., Dean of the Faculty of Applied Science.
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R. F. RUTTAN, B.A., M.D., Elective Fellow, Faculty of Medicine.
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C. H. GOULD, B.A., Governors' Fellow.
REV. W. I. SHAW, M.A., LL.D., Principal of the Montreal Wesleyan Theological College.
F. G. FINLEY, M.D., M.B. (London), Representative Fellow in Medicine.
FRANK D. ADAMS, M.A.Sc., Ph.D. (Heidelburg), Representative Fellow in Applied Science.

(The Governors, Principal and Fellows constitute, under the Charter, the Corporation of the University, which has the power, under the Statutes, to frame regulations touching the Course of Study, Matriculation, Graduation and other Educational matters, and to grant Degrees.)

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[*And Secretary of the Royal Institution.*]

OFFICE, EAST WING, McGILL COLLEGE.

Office Hours: 9 TO 5.

JAMES W. BRAKENRIDGE, B.C.L., Acting Secretary, address Secretary's Office, McGill College. Residence, 117 Shuter Str et.
SAMUEL R. BURRELL, Clerk, 588 Cadieux Street.

Principal and Professors Emeriti.

[*Retaining their Rank and Titles, but retired from active work.*]

SIR WM. DAWSON, LL.D., F.R.S., C.M.G.

Emeritus Principal and Professor in the Faculty of Arts.

HENRY ASPINWALL HOWE, LL.D.

Emeritus Professor in the Faculty of Arts.

WM. WRIGHT, M.D.

Emeritus Professor in the Faculty of Medicine.

D. C. MacCALLUM, M.D.

Emeritus Professor in the Faculty of Medicine.

MATTHEW HUTCHINSON, D.C.L.

Emeritus Professor in the Faculty of Law.

Hon. J. EMERY ROBIDOUX, D.C.L.

Emeritus Professor in the Faculty of Law.

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ALEXANDER JOHNSON, M.A., LL.D. (Dublin); D.C.L., F.R.S.C.
Senior Moderator (Math. and Phys.), and late Classical Scholar Trin. Coll., Dub.
Peter Redpath Professor of Pure Mathematics, Vice-Principal and Dean of the Faculty of Arts. — 5 Prince of Wales Terrace, Sherbrooke Street.

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Hiram Mills Professor of Classical Literature. — 177 Drummond Street.

PIERRE J. DAREY, M.A., B.C.L., LL.D., *Officier d'Académie,*
Professor of French Language and Literature. — 39 McGill College Av.

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Dean of the Faculty of Medicine, and Professor of Hygiene. — 1 Prince of Wales Terrace, Sherbrooke Street.

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Dean of the Faculty of Law, and Gale Professor of Roman and Public Law. — Rosemont, Cote St. Antoine.

HON. J. S. C. WURTELE, D.C.L.
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Professor of Chemistry, Faculty of Medicine. — 82 University Street.

REV. J. CLARK MURRAY, LL.D. (Glasgow), F.R.S.C.
Professor of Logic, and John Frothingham Professor of Mental and Moral Philosophy. — 340 Wood Av., Cote St. Antoine.

BERNARD J. HARRINGTON, B.A., Ph.D., F.G.S., F.R.S.C.
David J. Greenshields Professor of Chemistry and Mineralogy, and Lecturer in Assaying. — 295 University Street.

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Professor of Surgery. — 80 Union Avenue.

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late Fellow Queen's College, Cambridge.
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Professor of Anatomy. — 152 Mansfield Street.

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Professor of Ophthalmology and Otology. — 123 Stanley Street.

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C. W. COLBY, B.A., Ph.D.
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R. C. KIRKPATRICK, B.A., M.D.
Assistant Demonstrator in Surgery. 163 Mansfield Street.

SESSIONAL LECTURERS, ETC.

J. L. DAY, B.A. Sessional Lecturer in Classics. 40 Durocher Street.
H. M. TORY, B.A. " " Mathematics. McGill College.
Rev. J. L. MORIN, M.A. " " French. 65 Hutchison Street.
NEVIL NORTON EVANS, M.A.Sc. " " Chemistry. 217 Milton Street.
CARRIE M. DERICK, B.A. Demonstrator in Botany. McGill College.
CECIL B. SMITH, M.A.E.
Assistant in charge of the Drawing (Descriptive Geometry) Department 83 Shuter St.
JOHN G. G. KERRY, M.A.E.
Assistant in Surveying and Descriptive Geometry. 149 Durocher Street.
GEORGE S. SMITH, B.A. Sc.
Assistant to the Professor of Mechanical Engineering. McGill College.

DONALDA SPECIAL COURSE.

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Lady Superintendent 47 Victoria Street.
MISS HELEN O. BARNJUM
Instructress in Gymnastics 17 Brunswick Street.

LIBRARY.

CHAS. H. GOULD, B.A.
University Librarian 963 Dorchester Street.
MR. H. MOTT,
Assistant Librarian 47 St. Famille Street.

General Statement.

SESSION OF 1894-95.

The Sixty-second Session of the University, being the Forty-second under the amended Charter, will commence in the autumn of 1894.

By Virtue of the Royal Charter, granted in 1821 and amended in 1852, the Governors, Principal and Fellows of McGill College constitute the Corporation of the University; and, under the Statutes framed by the Board of Governors with the approval of the Visitor, have the power of granting Degrees in all the Arts and Faculties in McGill College and Colleges affiliated thereto.

The Statutes and Regulations of the University have been framed on the most liberal principles, with the view of affording to all classes of persons the greatest possible facilities for the attainment of mental culture and professional training. In its religious character the University is Protestant, but not denominational; and while all possible attention will be given to the character and conduct of Students, no interference with their peculiar views will be sanctioned.

The educational work of the University is carried on in McGill College, Montreal, and in the Affiliated Colleges and Schools.

I. McGILL COLLEGE.

THE FACULTY OF ARTS.—The complete course of study extends over four Sessions of eight months each; and includes Classics and Mathematics, Experimental Physics, English Literature, Logic, Mental and Moral Science, Natural Science, and one Modern Language or Hebrew. The course of study is, with few exceptions, the same for all Students in the first two years; but in the third and fourth years extensive options are allowed, more especially in favour of the Honour Courses in Classics, Mathematics, Mental and Moral Science, Natural Science, English Literature, Modern and Semitic Languages. Certain exemptions are also allowed to professional students. The course of study leads to the Degrees of B.A., M.A. and LL.D.

The Degree of B.A. from this University admits the holder to the study of the learned professions without preliminary examination, in the Provinces of Quebec and Ontario, and in Great Britain and Ireland, etc.

THE DONALDA SPECIAL COURSE IN ARTS provides for the education of women, in separate classes, with course of study, exemptions, degrees and honours similar to those for men.

THE FACULTY OF APPLIED SCIENCE provides a thorough professional training, extending over three or four years, in Civil Engineering, Mechanical Engineering, Mining Engineering and Assaying, Electrical Engineering, and Practical Chemistry, leading to the Degrees of Bachelor of Applied Science, Master of Engineering, and Master of Applied Science.

THE FACULTY OF MEDICINE.—The complete course of study in Medicine extends over four Sessions of six months each, and one Summer Session of three months in the third Academic Year, and leads to the Degree of M.D., C.M. Under new regulations, it will hereafter extend over four sessions of nine months each.

THE FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.—The complete course extends over three Sessions of six months each, and leads to the Degree of D.V.S.

THE FACULTY OF LAW.—The complete course of law extends over three Sessions of six months each, and leads to the Degrees of B.C.L. and D.C.L.

II. AFFILIATED COLLEGES.

Students of Affiliated Colleges are matriculated in the University, and may pursue their course of study wholly in the Affiliated College, or in part in McGill College, and may come up to the University Examinations on the same terms as the students of McGill College.

MORRIN COLLEGE, *Quebec*.—Is affiliated in so far as regards Degrees in Arts and Law. [Detailed information may be obtained from Rev. A. T. Love, B.A., Principal.]

ST. FRANCIS COLLEGE, *Richmond, P.Q.*—Is affiliated in so far as regards the Intermediate Examinations in Arts. [Detailed information may be obtained from the Rev. C. A. TANNER, Principal.]

THE STANSTEAD WESLEYAN COLLEGE, *Stanstead, P.Q.*—Is affiliated in so far as regards the Intermediate Examination in Arts. [Detailed information may be obtained from the Rev. C. R. FLANDERS, B.A., Principal.]

III. AFFILIATED THEOLOGICAL COLLEGES.

Affiliated Theological Colleges have the right of obtaining for their students the advantage, in whole or in part, of the course of study in Arts, with such facilities in regard to exemptions as may be agreed on.

THE CONGREGATIONAL COLLEGE OF BRITISH NORTH AMERICA, *Montreal*. Principal, REV. WILLIAM M. BARBOUR, D.D., 58 McTavish St.

THE PRESBYTERIAN COLLEGE, MONTREAL, in connection with the Presbyterian Church in Canada. Principal, REV. D. H. MACVICAR, D.D., LL.D., 69 McTavish St.

THE DIOCESAN COLLEGE OF MONTREAL. Principal, REV. CANON HENDERSON, M.A., D.D., 896 Dorchester St.

THE WESLEYAN COLLEGE OF MONTREAL. Principal, REV. W. I. SHAW, M.A., LL.D., 228 University St.

[Calendars of the above Colleges and all necessary information may be obtained on application to their Principals.]

IV. McGILL NORMAL SCHOOL.

THE MCGILL NORMAL SCHOOL provides the training requisite for Teachers of Elementary and Model Schools and Academies. Teachers trained in this School are entitled to Provincial Diplomas, and may, on conditions stated in the announcement of the School, enter the classes in the Faculty of Arts for Academy Diplomas and for the Degree of B.A. Principal, S. P. ROBINS, LL.D., 30 Belmont St., Montreal.

V. AFFILIATED HIGH SCHOOLS, ETC.

The Trafalgar Institute for the higher education of women, Simpson St., Montreal, Principal, Miss Grace Fairley. The High School of Montreal, Metcalfe St., Principal, Rev. I. Elson Rexford, B.A. The Girls' High School of Montreal, Metcalfe St.

Schools which have prepared successful candidates for A.A. or for matriculation (June, 1893).

High School, Montreal; Girls' High School, Montreal; High School, Quebec; Girls' High School, St John, N.B.; Coaticook Academy; Cookshire Model School; Cowansville Academy; Huntingdon Academy; Inverness Academy; Knowlton Academy; Lachute Academy; Sherbrooke Boys' Academy; Sherbrooke Girls' Academy; Stanstead Wesleyan College; St. Johns High School; Sutton Model School; Waterloo Academy; Eliock School, Montreal; Ottawa Collegiate Institute; Almonte High School; Bishop Ridley College, St. Catharines; Montreal Collegiate Institute; Bedford Academy; Girls' High School, Quebec; St. Francis College; Trafalgar Institute, Montreal; Brockville Collegiate Institute; Carleton Place High School; Cote St. Antoine Academy; Lennoxville Model School; Peterboro Collegiate Institute; Whethem College, Vancouver; Williamstown High School; Three Rivers Academy; Shawville Academy; Danville Academy; Hemmingford Model School; Waterville Model School; Mansonville Model School; Paspebiac Model School; Clarendon Model School; Montreal Diocesan College; Guelph Collegiate Institute; Hawkesbury High School; Kemptville High School; Sarnia Collegiate Institute; Upper Canada College; Woodstock College; Pictou Academy; Mount St Louis School, Montreal; The Grammar School, Montreal.

ACADEMICAL YEAR 1894-95.

SEPTEMBER, 1894.

1 Saturday	
2 SUNDAY	
3 Monday	Normal School opens. Lectures in Law begin. Matriculation in Law.
4 Tuesday	
5 Wednesday	Meeting of Normal School Com.
6 Thursday	
7 Friday	
8 Saturday	
9 SUNDAY	
10 Monday	
11 Tuesday	
12 Wednesday	
13 Thursday	
14 Friday	
15 Saturday	Meeting of Faculty of Arts.
16 SUNDAY	
17 Monday	Mat. and Sup. Exn's in Classics Exhib. and Scholarship Exam.
18 Tuesday	Mat. and Sup. Ex'ns in Math's Exhib. & Scholarship Exam.
19 Wednesday	Mat. & Sup. Ex'ns in English, Logic, Ment. and Mor. Phil. Exhib. and Sch. Exm'ns.
20 Thursday	Mat. & Sup. Ex'ns in Modern Lang's and Nat. Sc.; Exhib. and Sch. Exam'ns.
21 Friday	Exhib. and Sch. Ex'ns. Lect's in Arts and App. Sc. begin. Meeting of F. of Arts at 11.15 a.m
22 Saturday	Meeting of Governors.
23 SUNDAY	
24 Monday	Summer Essays in Applied Sc.
25 Tuesday	Meeting of Fac. of App. Sc.
26 Wednesday	
27 Thursday	
28 Friday	Meeting of Faculty of Arts.
29 Saturday	

OCTOBER, 1894.

1 Monday	
2 Tuesday	Session of Veterinary Faculty begins. Meeting of Fac. of App. Sc.
3 Wednesday	Meeting of Normal School Committee.
4 Thursday	
5 Friday	Founder's Birthday.
6 Saturday	The Wm. Molson Hall opened, 1862.
7 SUNDAY	
8 Monday	
9 Tuesday	
10 Wednesday	
11 Thursday	
12 Friday	Meeting of Faculty of Arts.
13 Saturday	
14 SUNDAY	
15 Monday	
16 Tuesday	
17 Wednesday	
18 Thursday	Physics Building Com.
19 Friday	
20 Saturday	
21 SUNDAY	
22 Monday	Meeting of Museum Com.
23 Tuesday	Meeting of Library Com.
24 Wednesday	Regular Meeting of Corporation. Reps. Schol. & Exh. Accounts audited.
25 Thursday	
26 Friday	Meeting of Faculty of Arts.
27 Saturday	Meeting of Governors.
28 SUNDAY	
29 Monday	
30 Tuesday	
31 Wednesday	New Library opened 1893.

NOVEMBER, 1894.

1 Thursday	
2 Friday	
3 Saturday	
4 SUNDAY	
5 Monday	
6 Tuesday	Meeting of Faculty of App. Sc.
7 Wednesday	Meeting of Normal School Com.
8 Thursday	
9 Friday	Meeting of Faculty of Arts.
10 Saturday	
11 SUNDAY	
12 Monday	
13 Tuesday	
14 Wednesday	
15 Thursday	
16 Friday	
17 Saturday	
18 SUNDAY	
19 Monday	
20 Tuesday	
21 Wednesday	
22 Thursday	
23 Friday	Meeting of Faculty of Arts.
24 Saturday	Meeting of Governors.
25 SUNDAY	Exams. in Law.
26 Monday	
27 Tuesday	
28 Wednesday	
29 Thursday	
30 Friday	

DECEMBER, 1894.

1 Saturday	
2 SUNDAY	
3 Monday	
4 Tuesday	Meeting of Faculty of App. Sc.
5 Wednesday	Meeting of Nor. Sch. Comm.
6 Thursday	
7 Friday	Meeting of Fac. of Arts.
8 Saturday	
9 SUNDAY	
10 Monday	
11 Tuesday	
12 Wednesday	Christmas Ex. in Law begin.
13 Thursday	
14 Friday	Lectures in Arts and App. Sc. end.
15 Saturday	
16 SUNDAY	
17 Monday	Christmas Ex. in Arts and Applied Science begin.
18 Tuesday	
19 Wednesday	
20 Thursday	
21 Friday	
22 Saturday	Christmas Vacation begins. Meeting of Governors.
23 SUNDAY	
24 Monday	
25 Tuesday	Christmas-Day.
26 Wednesday	
27 Thursday	
28 Friday	
29 Saturday	
30 SUNDAY	
31 Monday	

NOTE.—Meetings of the Faculty of Arts are held at 4.30 P.M. unless otherwise specified.

JANUARY, 1895.

1 Tuesday	
2 Wednesday	
3 Thursday	
4 Friday	Christmas Vacation ends.
5 Saturday	Meeting of Nor. Sc. Comm.
6 SUNDAY	
7 Monday	Lectures in Arts, Law, Med. & App. Science recommence. Meeting of Fac. of Arts.
8 Tuesday	Meeting of Fac. of App. Sci.
9 Wednesday	
10 Thursday	
11 Friday	
12 Saturday	
13 SUNDAY	
14 Monday	
15 Tuesday	
16 Wednesday	
17 Thursday	Phys. Build'g Com.
18 Friday	
19 Saturday	
20 SUNDAY	
21 Monday	Meeting of Museum Com.
22 Tuesday	Meeting of Library Com.
23 Wednesday	Regular Meet'g of Corporation. Examiners appointed. Annual Report to Visiter.
24 Thursday	
25 Friday	
26 Saturday	Meeting of Governors.
27 SUNDAY	
28 Monday	
29 Tuesday	
30 Wednesday	
31 Thursday	Theses for M.A. and L.L.D. to be sent in.

FEBRUARY, 1895.

1 Friday	Meeting of Faculty of Arts.
2 Saturday	
3 SUNDAY	
4 Monday	
5 Tuesday	Meeting of Fac. App. Science.
6 Wednesday	Meeting of Nor. School Com.
7 Thursday	
8 Friday	
9 Saturday	
10 SUNDAY	
11 Monday	
12 Tuesday	
13 Wednesday	
14 Thursday	
15 Friday	Meeting of Faculty of Arts. Supplemental Exam's in Arts and Applied Science.
16 Saturday	Exams. in Law.
17 SUNDAY	
18 Monday	
19 Tuesday	
20 Wednesday	
21 Thursday	
22 Friday	
23 Saturday	Meeting of Governors. Exams. in Law.
24 SUNDAY	
25 Monday	Physics & Engineering Building opened 1893.
26 Tuesday	Theses for B.C.L.
27 Wednesday	No lectures.
28 Thursday	

MARCH, 1895.

1 Friday	Meeting of Fac. of Arts.
2 Saturday	
3 SUNDAY	
4 Monday	
5 Tuesday	Meeting of Fac. of Ap. Science.
6 Wednesday	Meeting of Nor. Sc. Com.
7 Thursday	
8 Friday	
9 Saturday	
10 SUNDAY	
11 Monday	
12 Tuesday	
13 Wednesday	
14 Thursday	
15 Friday	Meeting of Fac. of Arts. Reports of Attendance on Lects.
16 Saturday	
17 SUNDAY	
18 Monday	Exam's in Med. begin.
19 Tuesday	Meeting of Fac. of Ap. Science
20 Wednesday	
21 Thursday	
22 Friday	Meeting of Faculty of Arts.
23 Saturday	Meeting of Governors.
24 SUNDAY	
25 Monday	
26 Tuesday	
27 Wednesday	
28 Thursday	
29 Friday	Conv. for Degrees in Veterinary Science.
30 Saturday	Lects. in Arts and Ap. Sc. end.
31 SUNDAY	

APRIL, 1895.

1 Monday	Exams. in Arts begin.
2 Tuesday	
3 Wednesday	Meeting of Nor. Sc. Committee
4 Thursday	Conv. for Degrees in Medicine.
5 Friday	Meeting of Fac. of Arts.
6 Saturday	
7 SUNDAY	
8 Monday	
9 Tuesday	
10 Wednesday	
11 Thursday	Lectures in Law end.
12 Friday	Good Friday. Easter Vacation begins.
13 Saturday	Examinations in Law.
14 SUNDAY	Easter.
15 Monday	
16 Tuesday	Easter vacation ends.
17 Wednesday	Examinations in Law.
18 Thursday	Phys. Build'g Com. Examinations in Law.
19 Friday	Examinations in Law.
20 Saturday	Meeting of Examiners, and Fac. of Arts.
21 SUNDAY	Examinations in Law.
22 Monday	Meetings of Museum Committee and Faculty of Law.
23 Tuesday	Meeting of Library Committee.
24 Wednesday	Regular meeting of Corporation.
25 Thursday	
26 Friday	Declaration of results of Exam. in Arts.
27 Saturday	Meeting of Governors.
28 SUNDAY	
29 Monday	
30 Tuesday	Convocation for Degrees in Arts, Law and Applied Science.

MAY, 1895.

1 Wednesday	Meeting Nor. Sch. Committee.
2 Thursday	Meeting of Examiners for Sch. Examinations. Examinations in Normal School begin.
3 Friday	
4 Saturday	
5 SUNDAY	
6 Monday	
7 Tuesday	
8 Wednesday	
9 Thursday	
10 Friday	
11 Saturday	
12 SUNDAY	
13 Monday	
14 Tuesday	
15 Wednesday	
16 Thursday	
17 Friday	
18 Saturday	
19 SUNDAY	
20 Monday	
21 Tuesday	
22 Wednesday	
23 Thursday	
24 Friday	Queen's Birthday.
25 Saturday	Meeting of Governors.
26 SUNDAY	
27 Monday	
28 Tuesday	
29 Wednesday	Normal Sch. closes for Summer Vacation.
30 Thursday	
31 Friday	

JUNE, 1895.

1 Saturday	
2 SUNDAY	Whit-Sunday.
3 Monday	Examinations for Matric. and Associate in Arts begin.
4 Tuesday	
5 Wednesday	Normal School Committee.
6 Thursday	
7 Friday	
8 Saturday	
9 SUNDAY	Trinity Sunday.
10 Monday	
11 Tuesday	
12 Wednesday	
13 Thursday	Phys. Building Com.
14 Friday	
15 Saturday	
16 SUNDAY	
17 Monday	Meeting of Museum Committee.
18 Tuesday	Meeting of Library Committee.
19 Wednesday	Regular Meeting of Corporat'n. Report of Normal School.
20 Thursday	
21 Friday	
22 Saturday	Meeting of Governors.
23 SUNDAY	
24 Monday	
25 Tuesday	
26 Wednesday	
27 Thursday	
28 Friday	
29 Saturday	

JULY, 1895.

1 Monday	
2 Tuesday	
3 Wednesday	
4 Thursday	
5 Friday	
6 Saturday	
7 SUNDAY	
8 Monday	
9 Tuesday	
10 Wednesday	
11 Thursday	
12 Friday	
13 Saturday	
14 SUNDAY	
15 Monday	
16 Tuesday	
17 Wednesday	
18 Thursday	
19 Friday	
20 Saturday	
21 SUNDAY	
22 Monday	
23 Tuesday	
24 Wednesday	
25 Thursday	
26 Friday	
27 Saturday	
28 SUNDAY	
29 Monday	
30 Tuesday	
31 Wednesday	

AUGUST, 1895.

1 Thursday	
2 Friday	
3 Saturday	
4 SUNDAY	
5 Monday	
6 Tuesday	
7 Wednesday	
8 Thursday	
9 Friday	
10 Saturday	
11 SUNDAY	
12 Monday	
13 Tuesday	
14 Wednesday	Peter Redpath Museum opened 1882.
15 Thursday	
16 Friday	
17 Saturday	
18 SUNDAY	
19 Monday	
20 Tuesday	
21 Wednesday	
22 Thursday	
23 Friday	
24 Saturday	
25 SUNDAY	
26 Monday	
27 Tuesday	
28 Wednesday	
29 Thursday	
30 Friday	
31 Saturday	

FACULTY OF ARTS.

EXHIBITION, SCHOLARSHIP, &c., EXAMINATIONS, SEPTEMBER, 1894.

Day.	Date	First Year	Second Year.	Third Year.	Hour.
Monday.	17	Greek.	Greek.	Greek.	9 to 12
"	17	Latin.	Latin.	Latin Prose Comp.	2 to 5
"	17			Mathematics.	9 to 12
Tuesday.	18	Mathematics.	Mathematics.	Latin.	9 to 12
"	18			Mathematics.	9 to 12
"	18			Botany.	9 to 12
"	18	Mathematics.	Mathematics.	Ancient History.	2 to 5
	18			Botany.	2 to 5
Wednesday.	19	English.	English.	English.	9 to 12
"	19			Logic.	9 to 12
"	19	English.		English.	2 to 5
"	19		Chemistry.	Chemistry.	2 to 5
Thursday.	20			Mathematics.	9 to 12
"	20			Botany.	9 to 12
"	20		French.	French.	9 to 12
"	20	Grammar and Comp. (Classics.)	General Paper. (Classics.)	English Composition	2 to 5
Friday.	21		Mathematics.	Mathematics.	9 to 12
			English.		2 to 5

CHRISTMAS EXAMINATIONS DECEMBER, 1894.

Day.	Date	First Year.	Second Year.	Third Year.	Fourth Year.
Monday.	17	Latin.	Latin.	Mechanics.	Astronomy.
	17		M'matics, P.M.		
Tuesday.	18	Greek.	Greek.	Greek.	Greek.
"	18			Zoology, P.M.	Latin, P.M.
Wednesday.	19	Mathematics.	Psychology.	Latin.	Moral Philosophy
"	19	French, P.M.	French, P.M.	Ment. Phil., P.M.	Geology, P.M.
Thursday.	20	Chemistry.			
"	20	German, P.M.	German, P.M.		
"	20	Hebrew, P.M.	Hebrew, P.M.		
Friday.	21	English.			

FACULTY OF ARTS.

SESSIONAL AND HONOUR EXAMINATIONS, APRIL, 1895.

DATE.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR.
APRIL.	A.M. P.M.	A.M. P.M.	A.M. P.M.	A.M. P.M.
1 Mon.	Hebrew	Hebrew	Hebrew.....	Hebrew and B.A. Honours.
2 Tues.	Greek.....	Greek.....	Mechanics.....	Ethics. Ethics.
3 Wed.	Latin....Anc.History	Latin...Composition.	Latin.....	Latin. Latin.
4 Thurs.	.....	Convocation for Degr	ees in Medicine....	.....
5 Fri.	English.....English.	English. English.	Ex. Phy- English. sics.	Ex. Phy- History. sics.
6 Sat.	.....	.....	.....	.....
8 Mon.	Geometry and Arithmetic. ...	Mathematics.....	Greek.....	Mechanics and B.A. Honours.
9 Tues.	Trigonometry and Algebra.....	Mathematics...	Astronomy and .... Optics..... ..	Astr'y. and Optics. B.A. Honours.
10 Wed.	French. German.	French. German.	Metaphysics.....	Geology. Geology.
11 Thurs.	.....	.....	.....	.....
12 Fri.	Good Friday. Easter	vacation begins.....	.....	.....
13 Sat.	.....	.....	.....	.....
14 Sun.	Easter Day.....	.....	.....	.....
15 Mon.	.....	.....	.....	.....
16 Tues.	Easter vacation ends.	.....	.....	.....
17 Wed.	Chemistry	Logic.....	....Zoology.	Greek. History.
18 Thurs.	.....	Botany.....Botany.	French. German.	French. German. B.A. Honours.
19 Fri.	Honour Examinations	Honour Examinations	Honour Exam'tions	B.A. Honours.
20 Sat.	Meeting of	Examiners and Facul	ty. 9.30 A. M.	
22 Mon.	Honour Examinations	Honour Examinations	Honour Exam'tions	B. A. Honours.
23 Tues.	Meeting of	Examiners and Facul	ty. 9.30 A. M.	
24 Wed.	Meeting of Examin	ers and Faculty. 9.30	A.M. Regular Meet	ing of Corporation.
25 Thurs.	Meeting of	Examiners and Facul	ty. 9.30 A. M.	
26 Fri.	Meeting of Examin	ers and Faculty. 9.30	A.M. Declaration	of results.
27 Sat.	.....	.....	.....	.....
29 Mon.	.....	.....	.....	.....
30 Tues.	Convocation for Degr	ees in Arts.		

The Examinations begin at 9 A.M. and 2 P.M. when not specified otherwise.

FACULTY OF APPLIED SCIENCE.

SESSIONAL AND HONOURS EXAMINATIONS, APRIL, 1894.

Date	First Year.	Second Year.	Third Year.	Fourth Year.
M. April	1	....	.....	.....
T. "	2	.....	.....	.....
W. "	3	.....	.....	.....
T. "	4	.....	.....	.....
F. "	5 English.	Exp. Physics.	Exp. Physics.	Machine Design.
S. "	6 Mathematics.	English.	{ Machine Design. { Surveying.	Goodesy.
Sun. "	7	.....	.....	.....
M. "	8 Freehand Drawing.	Surveying.	Theory of Structures	{ Th. of Structures { Dyn. of Machin'y.
T. "	9	Kinematics.	Theory of Structures a.m. and p.m.	{ Th. of Structures { a.m. and p.m.
W. "	10 French. German.	French. German.	{ Geology. { Dyn. of Machin'y.	{ Th. of Structures. { Elect. Engr.
T. "	11 Desc. Geometry.	Desc. Geometry.	Desc. Geom.	Theory of Structures
F. "	12 Good Friday.	.....	.....	.....
S. "	13 Mathematics.	Mathematics.	.....	{ Mechanical Engr. { Th. of Struct. (adv.)
Sun. "	14 Easter Day.	....	.....	{ Elect. Engr. { Hydraulics.
M. "	15	....	Elect. Engineering.	{ Hydraulics, (adv.). { Metallurgy.
T. "	16	.....	Mining.	Thermodynamics.
W. "	17 Chemistry.	Zoology p.m.	.....	
T. "	18	Botany a.m. & p.m.	.....	
F. "	19 Mathematics.	Mathematics.	Mathematics.	
S. "	20			
Sun. "	21			
M. "	22			
T. "	23			
W. "	24			
T. "	25			
F. "	26			
S. "	27			
S. "	28			
M. "	29			
T. "	30 Convocation.			

N.B.—The Examinations begin at 9°00 a.m. and 2.00 p.m. when not specified otherwise.

Faculty of Arts.

THE PRINCIPAL (EX-OFFICIO).

Professors :—	DAWSON, (*Emeritus.*)	Professors :—	COUSSIRAT.
	JOHNSON,		COX.
	CORNISH,		EATON.
	DAREY,		ADAMS.
	MURRAY,		CALLENDAR.
	HARRINGTON,	Lecturers :—	LAFLEUR.
	MOYSE,		GREGOR.
	PENHALLOW.		DEEKS.
			COLBY.

Dean of the Faculty :—ALEXANDER JOHNSON, M.A., LL.D.

[CONTENTS.—*Matriculation, etc.*, § I. ; *Exhibitions, etc.*, § II. ; *Course of Study*, § III. ; *Examinations, Degrees, etc.*, § IV. ; *Exemptions, etc.*, § V. ; *Medals, etc.*, § VI. ; *Licensed Boarding Houses*, § VII. ; *Attendance and Conduct*, § VIII. ; *Library*, § IX. ; *Peter Redpath Museum*, § X. ; *McDonald Physics Building*, §XI. ; *Fees, etc.*, § XII. ; *Courses of Lectures*, § XIII.]

The next session of this Faculty will begin on September 17th, 1894, and will extend to April 30th, 1895.

§ I. MATRICULATION AND ADMISSION.

In this University those only who attend Lectures are denominated Students.

Students in the Faculty of Arts are classified as Undergraduates or Partial Students. The conditions of admission for each and for Students of other Universities are given below.

1. UNDERGRADUATES.

Undergraduates alone can proceed to the degree of B. A. Candidates for admission to the First Year, as Undergraduates, are required to pass the First Year Entrance Examination. The successful Candidates are arranged as First Class, Second Class, and Passed. To

the most deserving in the First Class, the First Year Exhibitions are awarded. For those who aim at passing only, a minimum course is appointed, and there are two examinations in the year as follows :—

(1) That held in the first week of June, concurrently with the examinations for Associate in Arts. Schools desirous to take advantage of this may send their pupils for examination to McGill College ; or, if at a distance, by sending in to the Secretary of the University the names of Deputy Examiners for approval, with a list of candidates, on or before May 1st, may have papers sent to them. (2) That held at the opening of the session, on September 17th and following days, in McGill College alone.

In 1895 the following regulations with regard to the First Year Entrance Examination will come into operation :—

1. There will be an Entrance Examination at Christmas, which will include the subjects of the September Entrance together with those of the lectures of the first term. This ceases after 1895.

2. Any candidate who fails in one and not more than one subject at the September Entrance Examination may pass an equivalent Examination at Christmas, or at the following Sessional Examinations, in the precise part of the subject in which he failed. In this regulation, Classics Mathematics, and English, are each regarded as a single subject.

3. The Entrance Examinations will be held in June and September on those days only which may have been appointed in the Calendar.

As the examination is intended as a test of qualification for admission to the classes of the University, certificates of passing are not granted except to those who subsequently attend lectures. Candidates who may have passed the examination are not "Matriculated," *i.e.*, enrolled on the "Matricula" of the University, until they have paid all the prescribed fees for the session and complied with the other University regulations. (See "Directions" below.)

First Year Entrance Examination.

(a) For Passing only.

Examinations begin on June 1st in McGill College and local centres; on September 17th in McGill College only.

Greek.—Xenophon, Anabasis, Book I. ; Greek Grammar.

Latin.—Caesar, Bell. Gall., Book I. ; and Virgil, Aeneid, Book I., Latin Grammar. [In 1895, and afterwards, two books of Caesar will be required.]

Mathematics.—Arithmetic, including a knowledge of the Metric system; Algebra to Quadratic Equations (inclusive) as in Colenso; Euclid's Elements, Books I, II., III.

English.—Writing from Dictation. A paper on English Grammer *including Analysis*. A paper on the leading events of English History. Essay on a subject to be given at the time of the examination.

French.—Grammar up to the beginning of Syntax. An easy translation from French into English.

Candidates unable to take French are not excluded, but will be required to study German after entrance.

At the September (but not at the June) examinations, an equivalent amount of other books or other authors in Latin and Greek than those named may be accepted by the Examiners on application made through the Professor of Classics. At the June examination, candidates from Ontario may present an equivalent amount from the books prescribed for the Junior Matriculation Examination of the University of Toronto.

Candidates who at the Examination for Associate in Arts have passed in the above subjects are admitted as Undergraduates.

The Matriculation or Junior leaving Examination accepted by the Universities of Ontario is accepted by the Faculty in so far as the subjects of their programme satisfy the Examiners of the Faculty, *i.e.*, when the subjects taken are the same as or equivalent to those required in McGill University.

For Candidates from Ontario, Second Class non-professional certificates will be accepted *pro tanto* in the Examination.

For qualifications required of Normal School Students, see Normal School regulations.

Candidates who fail in one or more subjects at the June examination, and present themselves again in the following September, will be exempted from examination in those subjects only in which the Examiners may have reported them as specially qualified.

(*b*) *Higher Examination—For First Class, Second Class and Passing.*

The examination will be held on September 17th and following days in McGill College only. (For Exhibitions, see § II.)

Greek.—Homer, Iliad, Bk. IV. or VI.; Xenophon, Anabasis, Bk. I. or IV.; Demosthenes, Philippics, I. and II.; or Homer, Odyssey, Bk. VII or IX.

Latin.—Cicero, in Catilinam, Orat. I. and II. or Virgil, Aeneid, Bks. III. and IV.; Caesar, Bell. Gall., Bks. I. and II. or III. and IV.; Virgil, Aeneid, Bk. I. or II.

A paper on Greek and Latin Grammar.

Translation at sight from the easier Latin authors. Abbott's Arnold's Greek Prose Composition, Exercises 1 to 25. Collar's Practical Latin Composition, Pts. III. and IV., or an equivalent, such as Arnold's Latin Prose Composition.

Mathematics.—Euclid, Bks. I., II., III., IV.; Algebra to end of Harmonical Progression (Colenso); Arithmetic.

English.—English Grammar and Composition.—(Mason's Grammar, omit Derivation and Appendix.)

French.—(solely as a test of qualification to join the French Class.)—Grammar up to the beginning of Syntax; and easy translation from French into English Candidates unable to take French will be required to study German after entrance.

Second Year Entrance Examination.

Candidates may be admitted into Second Year as Undergraduates, if able to pass the Second Year Entrance Exmination. The regulations for this correspond to those for the First Year, the higher examination being the same as that for the Second Year Exhibitions (see § II.) held in September; or the candidates may take the First Year Sessional Examinations held in April. There is besides :

For Passing only.

An Examination beginning on Sept. 17th, in McGill College only.

In Classics.—*Greek.*—Homer, Iliad, Book VI.; Xenophon, Anabasis, Book I. Grammar and Prose Composition.

Latin.—Virgil, Aeneid, Book VI.; Cicero, Orations against Catiline; Grammar and Prose Composition.

[An equivalent amount of other books or other authors in Latin and Greek than those named above may be accepted by the Examiners for entrance into the Second Year, on application made through the Professor of Classics.]

In Mathematics :—

Euclid.—Books I., II., III., IV., VI., with defs. of Book V. (Omitting Propositions 27, 28, 29 of Book VI.)

Algebra.—To end of Quadratic Equations (as in Colenso's Alg.).

Trigonometry.—Galbraith and Haughton's Trigonometry, Chaps. 1, 2, 3, 4, 6, to beginning of numerical solution of plane triangles.

Arithmetic.—Elementary rules, Proportion, Interest, Discount, etc., Vulgar and Decimal Fractions, Square Root, Metric System.

In English Literature.—Writing from Dictation, English Grammar, including Analysis, English Composition, English History (Buckley). Essay.

In French.—French Grammar; or (instead of French) *German*, in which knowledge sufficient to enable the Candidate to join the regular class will be required.

In Chemistry.—The Chemistry of the non-metallic Elements and of the more common metals.

[*Note.*—Candidates unable to pass in French or German are not excluded, but are required to begin German, and to continue the study of it for two years

2. PARTIAL STUDENTS.—STUDENTS OF OTHER UNIVERSITIES.

PARTIAL STUDENTS.—All Students who are not Undergraduates or Graduates, or Students in Special Courses, are called Partial Students. Candidates for admission as Partial Students must satisfy the professors of the several subjects they select of their fitness to attend the lectures, or be examined in these subjects, as may from time to time be determined by the Faculty.

The subjects in which an examination is necessary are:—Latin, Greek, Mathematics, English, French. Candidates are required to appear at the ordinary entrance examinations announced above; but on application to the Faculty, may, for sufficient cause, have a later day appointed.

STUDENTS OF OTHER UNIVERSITIES may be admitted, on the production of certificates, to a like standing in this University, after examination by the Faculty.

3. GENERAL REGULATIONS.

Candidates for entrance into the First Year of the Faculty of Medicine in McGill University may pass in the above examinations.

Every student is expected to present, on his entrance, a written intimation from his parent or guardian of the name of the minister of religion under whose care and instruction it is desired that the Student should be placed, who will thereupon be invited to put himself in communication with the Faculty on the subject. Failing such intimation from his parent or guardian, the Faculty will endeavor to establish befitting relations.

Every student is required to sign the following:—

DECLARATION.

"I hereby declare that I will faithfully observe the statutes, rules and ordi-
"nances of this University of McGill College to the best of my ability."

4. DIRECTIONS TO CANDIDATES FOR MATRICULATION OR ADMISSION.

Candidates are required :—

(*a*) To present themselves to the Dean at the beginning of the session, and fill up a form of application for matriculation or admission (§ I.).

(*b*) To pass or to have passed the required examinations (§ I.). Candidates claiming exemption, according to the regulations above given, from examination in any subject on the ground of examinations previously passed, must present certificates of standing in the latter.

(*c*) To procure tickets from the Registrar (§ XI.), and to sign the declaration above given.

(*d*) To present their tickets to the Dean. (Fine, etc., for delay stated in § XI.)

(*e*) To provide themselves with the Academic dress (§ VIII.).

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§ II. SCHOLARSHIPS AND EXHIBITIONS.

General Regulations.

1. A Scholarship is tenable for *two* years ; an Exhibition for *one* year.

2. Scholarships are open for competition to Students who have passed the University Intermediate Examination, provided that not more than three sessions have elapsed since their Matriculation ; and also to Candidates who have obtained what the Faculty may deem equivalent standing in some other University, provided that application be made before the end of the Session preceding the examination.

3. Scholarships are divided into two classes:—(1) *Science* Scholarships ; (2) *Classical and Modern Language* Scholarships. The subjects of examination for each are as follows :—

Science Scholarships :—Differential and Integral Calculus ; Analytic Geometry ; Plane and Spherical Trigonometry ; Higher Algebra and Theory of Equations ; Botany ; Chemistry ; Logic. (For subdivision, see below.)

Classical and Modern Language Scholarships :—Greek ; Latin ; English Composition ; English Language, Literature, and History ; French or German.

4. Exhibitions are assigned to the First and Second Years.

First Year Exhibitions are open for competition to candidates for entrance into the First Year.

Second Year Exhibitions are open for competition to students who have passed the First Year Sessional Examinations, provided that not more than two sessions have elapsed since their Matriculation ; and also to candidates for entrance into the Second Year.

The subjects of examination are as follows :—

First Year Exhibitions.—Classics, Mathematics, English.

Second Year Exhibitions.—Classics, Mathematics, English Language and Literature, Chemistry and French or German.

5. The First and Second Year Exhibition Examinations will, for Candidates who have not previously entered the University, be regarded as Matriculation Examinations.

6. No student can hold more than one Exhibition or Scholarship at the same time.

7. Exhibitions and Scholarships will not necessarily be awarded to the best answerers at the Examinations. Absolute merit will be required.

8. If in any one College Year there be not a sufficient number of candidates showing absolute merit, any one or more of the Exhibitions or Scholarships offered for competition may be transferred to more deserving candidates in another year.

6. A successful candidate must, in order to retain his Scholarship or Exhibition, proceed regularly with his College Course to the satisfaction of the Faculty.

10. The annual income of the Scholarships or Exhibitions will be paid in four instalments, viz. :—In October, December, February and April, about the 20th day of each month.

11. The Examinations will be held at the beginning of every Session.

There are at present seventeen Scholarships and Exhibitions:—

THE JANE REDPATH EXHIBITION, founded by Mrs. Redpath, of Terrace Bank, Montreal :—value, about $90 yearly, open to both men and women.

TEN MCDONALD SCHOLARSHIPS AND EXHIBITIONS, founded by W. C. McDonald, Esq., Montreal :—value, $125 each yearly.

THE CHARLES ALEXANDER SCHOLARSHIP, founded by Charles Alexander, Esq. Montreal, for the encouragement of the study of Classics and other subjects —value, $120 yearly.

THE GEORGE HAGUE EXHIBITION, given by George Hague, Esq., Montreal, for the encouragement of the study of Classics:—value, $125 yearly.

THE MAJOR H. MILLS SCHOLARSHIP, founded by bequest of the late Major Hiram Mills :—value, $100 yearly.

THE BARBARA SCOTT SCHOLARSHIP, founded by the late Miss Barbara Scott, for the encouragement of the study of the Classical languages and literature : —value, $100 to $120 yearly.

TWO DONALDA EXHIBITIONS, open to women in the Donalda Department :— value, $100 and $120 yearly.

EXHIBITIONS AND SCHOLARSHIPS OFFERED FOR COMPETITION AT THE OPENING OF THE SESSION, SEPT., 1894.

N.B.—*Three of the Exhibitions are open to women (two of these to women, alone, either in the First or Second Year).*

To students entering the First Year, three Exhibitions of $125, *two of* $100, *and one of* $120.

Subjects of Examination :—

GREEK.—Homer, Iliad, Bk. IV. or VI. ; Xenophon, Anabasis, Bk. I. or IV. Demosthenes, Philippics I. and II., or Homer, Odyssey, Bk. VII. or IX.

LATIN.—Virgil, Aeneid, Bk. I. or II. ; Cicero, In Catilinam, Orat. I. and II. ; or Virgil, Aeneid, Bks. III. and IV. ; Caesar, Bell. Gall., Bks. I. and II., or III. and IV.

A paper on Greek and Latin Grammar.

Text-Books.—Hadley's or Goodwin's Greek Grammar. Abbott's Arnold's Greek Prose Composition, exercises 1 to 25. Allen and Greenough's Latin Grammar. Arnold's Latin Prose Composition by Bradley, or Collar's Latin Composition, Pts. III. and IV.

Mathematics.—Euclid, Bks. I., II., III., IV. ; Algebra to end of Harmonical Progression (Colenso) ; Arithmetic.

English.—English Grammar and Composition.—(Mason's Grammar, omit Derivation and Appendix.)

The First Year Exhibitions will be awarded to the best answerers in the above course, provided there be absolute merit.

But in subsequently distributing the Exhibitions of higher value among the successful candidates, answering in the following subjects will be taken into account also :—

1. A retranslation into Latin of an English version of some passages from one of the easier Latin Prose writers. (For specimens, see Smith's Principia Latina, Part V.)

2. Euclid. Book VI. (omitting Props. 27, 28, 29), with Defs. of Book V.

3. English :—An Examination upon one of Shakespeare's plays. For 1894—Macbeth.

4. French :—Syntax and translation from English into French, in addition to the entrance course.

To Students entering the Second Year, four Exhibitions of $125 *and one of* $90 (*see also* N.B. *above*).

Subjects of Examination :—

Greek.—Xenophon, Hellenics, I. and II. ; Demosthenes, Olynthiacs, I. and II. ; Herodotus, Bk. III.

Latin.—Virgil, Georgics, Bk. I. ; Horace, Odes, Bk. I. ; Cicero, Pro Lege Manilia and Pro Archia.

Greek and Latin Prose Composition, and translation at sight from the less difficult Latin and Greek authors.

A Paper on Grammar and History.

Text-books.—Myer's Ancient History, Abbott's Arnold's Greek Prose Composition, Latin Prose through English idiom (Abbott).

Mathematics.—Euclid (six books) ; Algebra (Hall & Knight's Advanced) ; McDowell's Exercises in Modern Geometry ; Theory of Equations (in part) ; Trigonometry (first four chapters Galbraith & Haughton's).

English Literature.—Mason's Grammar. Shakespeare, *As You Like It.* Trench, *Study of Words.*

Chemistry.—Roscoe's Lessons in Elementary Chemistry, as far as page 264.

French.—Darey, Principes de Grammaire française; LaFontaine, les Fables, livres III. and IV.; Molière, l'Avare; Colloquial exercises; Dictation.

Or, instead of French:—

German.—German Grammar; Grimm's Kinder—und Hausmærchen (Vandersmissen's edition); Schiller— Der Neffe als Onkel, Der Gang nach dem Eisenhammer; Dictation; Translation from English into German.

A candidate for a Second Year Exhibition to be successful must not, at the special examination, be placed in the Third Class in more than one of the ordinary subjects. The award is made on the aggregate of the marks among those who fulfill this condition.

To Students entering the Third Year, three Scholarships of $125 *and one of* $120, *tenable for two years.*

One of these is offered in Mathematics and Logic, and one in Natural Science and Logic, as follows:—

1. *Mathematics.*—Differential Calculus (Williamson, Chaps. 1, 2, 3, 4, 7, 9, Chap. 12, Arts. 168-183 inclusive; Chap. 17, Arts. 225-242 inclusive). Integral Calculus (Williamson, Chaps. 1, 2, 3, 4, 5; Chap. 7, Arts. 126-140 inclusive; Chap. 8, Arts. 150-156 inclusive; Chap. 9, Arts. 168-176 inclusive). Analytic Geometry (Salmon's Conic Sections, subjects of Chaps. 1-13 [omitting Chap. 8], with part of Chap. 14). Lock's Higher Trigonometry; McLelland and Preston's Spherical Trigonometry, Part I. Salmon's Modern Higher Algebra (first four chapters). Todhunter's or Burnside and Panton's Theory of Equations (selected course).

   Logic, as in Jevon's Elementary Lessons in Logic.

2. *Natural Science.—Botany*, as in Gray's Structural and Systematic Botany. *Canadian Botany*, including a practical acquaintance with all the orders of Spermaphytes, Pteridophytes and Bryophytes. *Chemistry*, as in Roscoe's Lessons in Elementary Chemistry.

   Logic, as in Jevons' Elementary Lessons on Logic.

Two will be given on an Examination in Classics and Modern Languages, as follows:—

Classics.—Greek.—Plato, Apology and Crito; Demosthenes, the Olynthiacs; Xenophon, Memorabilia, Book I.; Thucydides, Book VI. *Latin.*—Horace, Epistles, Book I.; Livy, Bks. XXI., XXII.; Virgil, Georgics, Book II.; Sallust, Catiline; Cicero, Select Letters (Pritchard and Bernard; Clarendon Press Series). Greek and Latin Prose Composition, and Translation at sight.

History.—*Text Books.*—Smith's Student's Greece; Mommsen's Rome (abridged).

English Language and Literature.—Spalding's English Literature (Chap. VI., Part III., to end of book); Shakspere, Tempest; Milton's Paradise Lost, Books I. and II.; Trench, Study of Words.

English Composition.—High marks will be given for this subject.

French.—Racine, Britannicus; Molière, les Femmes savantes. French Grammar. Bonnefon, les Ecrivains célèbres de la France. Translation from English into French; Dictation.

Or, instead of French:

German.—Schiller—Egmont's Leben und Tod (Buchheim), Die Kraniche des Ibycus, Das Lied von der Glocke, Der Kampf mit dem Drachen; Goethe.—Torquato Tasso; German Grammar; Translation from English into German; Dictation.

Classical Subjects for Exhibitions, September, 1895.

FIRST YEAR.—*Greek.*—Homer, Iliad, Bk. IV. or VI.; Xenophon, Anabasis, Bk. I. or V.; Homer, Odyssey, Bk. VII. or XI.

Latin.—Virgil, Aen., Bk. I. or II.; Cicero, in Catilinam, I., II.; or, Horace, Odes, III. and IV.; Caesar, Bell Gall., I. and II. or V. and VI.

SECOND YEAR.—*Greek.*—Xenophon, Hellenics, I. and II.; Demosthenes, Olynthiacs, I. and II.; Herodotus, Bk. III.

Latin.—Virgil, Georgics, Bk. I.; Horace, Odes, Bk. I; Livy, Bk. XXII.

EXEMPTIONS FROM TUITION FEES UNDER PRESENTATION SCHOLARSHIPS, ETC.

Four exemptions from tuition fees may be granted by the Board of Governors from time to time, to the most successful students who may present themselves as Candidates. By order of the Board, one of these is given annually to the Dux of the High School of Montreal, and one to the Dux of any other Academy or High School, sending up in one year for entrance, three or more Candidates competent to pass creditably the Matriculation Examination.

In the event of any Academy or High School in the Province of Quebec offering for competition among its pupils an Annual Bursary in the Faculty of Arts of not less than $80, the Governors will add the amount of the fees of tuition thereto.

Exemptions from tuition fees, not exceeding three in number, may be given to holders of the Academy Diploma of the McGill Normal School, who, on fulfilling the required conditions, enter in the Second Year, if at the Diploma Examina-

tion they have taken 75 per cent. of the total marks with not less than two-thirds of the marks in Latin and in Greek. (For exemptions from fees to Normal School Students, see regulations of Normal School.)

One exemption is given annually to the pupil (boy or girl) of the Montreal High School holding a Commissioners' exemption from the Schools of the Protestant Commissioners, Montreal, who has taken the highest marks at the A. A. Examination, and is recommended by the Commissioners.

§ III. COURSE OF STUDY.

An Undergraduate, in order to attain the degree of B.A., is required, after passing the First Year Matriculation Examination (see § I.), to attend the appointed courses of lectures regularly for four years, and to pass two Examinations in each year, viz., at Christmas and in April. If he fail at any one of these examinations, he is not allowed to proceed with his course until he has passed it subsequently. (See § IV.) Undergraduates are arranged, according to heir standing, as of the First, Second, Third or Fourth Year.

The special arrangements made for Honour Students and for those attending lectures in other Faculties also are stated in § V.

ORDINARY COURSE FOR THE DEGREE OF B.A.

FIRST YEAR.

GREEK.—HOMER.—Odyssey, Bk. XI. Xenophon.—Hellenics, Book I. Studies in History and Literature.

LATIN.—CICERO, De Amicitia. Sallust, Catiline. VIRGIL, Aeneid, Bk. VI.—Translation at sight.—Studies in History and Literature.—Latin Prose Composition.

MATHEMATICS.—Arithmetic, Euclid, six books. Algebra, to end of Quadratic equations. Plane Trigonometry, in part.

ENGLISH LANGUAGE AND LITERATURE.

First term.—English Composition, one lecture a week; English Literature, two lectures a week.

Second term.—MILTON'S Comus, one lecture a week. English Literature, in continuation of previous course, two lectures a week. The whole course will present an outline of English Literature from the Anglo-Saxon period to the Elizabethan inclusive.

CHEMISTRY.—Lectures chiefly on Elementary and Inorganic Chemistry, with experiments in the class-room, and Laboratory work if desired; the whole preparatory to the Course in Natural Science.

FRENCH.—DARLY, Principes de Grammaire française.—LA FONTAINE, Choix de Fables.—MOLIÈRE, L'Avare.—Dictation, Colloquial exercises.

Or, instead of French, either of the following:—

GERMAN.—VANDERSMISSEN AND FRASER'S German Grammar; JOYNES' German Reader; Dictation; Colloquial exercises.

HEBREW.—(For Theological Students only.)—*Elementary Course.*—Reading and Grammar, with oral and written exercises in Orthography and Etymology. Translation and Grammatical Analysis of Genesis.—*Text-Books:*—HARPER'S Elements of Hebrew; and Introductory Hebrew Method and Manual.

SECOND YEAR.

GREEK.—PLATO.—Apology. Aeschylus.—Prometheus Vinctus. History of Greece.

LATIN.—HORACE.—Epistles, Bk. I.; Livy, Bk. XXI. Translation at sight, and Latin Prose Composition.

MATHEMATICS.—Arithmetic, Euclid. Algebra and Trigonometry as before.—Logarithms.—Plane Trigonometry, including solution of triangles and applications.

MATHEMATICAL PHYSICS.—Mechanics, one lecture a week.

ENGLISH LITERATURE.—A period of English Literature and one play of Shakspere. During the session of 1894–5—The leading poets of the nineteenth century. SHAKSPERE, A Midsummer Night's Dream [Clarendon Press Edition]. TENNYSON, Gareth and Lynette.

PSYCHOLOGY AND LOGIC.—First Term.—Elementary Psychology (*Text-Book:*—MURRAY'S Handbook of Psychology, Bk. I.). Second Term.—Logic (*Text-Book:*—JEVONS' Elementary Lessons in Logic).

BOTANY.—General Morphology and Classification. Descriptive Botany. Flora of Canada. Nutrition and reproduction of plants. Elements of Histology. *Text-Books:*—Gray's Structural Botany. Penhallow's Classification. Penhallow's Guide to the Collection of Plants. Gray's Manual.

FRENCH.—RACINE, Esther.—Ponsard, l'Honneur et l'Argent.—CONTANSEAU, Précis de Littérature française depuis son origine jusqu'à la fin du XVIIe siècle. Translation into French:—DR. JOHNSON, Rasselas. Dictation. Parsing. Colloquial exercises.

Or, instead of French, either of the following:—

GERMAN.—VANDERSMISSEN AND FRASER'S German Grammar; Joynes' German Reader; Freytag—Die Journalisten; Uhland—Ballads and Ro-

mances (MacMillan's Foreign School Classics); Translation at sight; Dictation; Colloquial exercises; Parsing.

HEBREW.—(For Theological Students only.)—*Intermediate Course.*—Grammar.—Dr. Harper's "Elements and Methods."—Translation from the Old Testament.—Exercises;—Hebrew into English, and English into Hebrew.—Syntax.—Reading of the Masoretic notes.

For the Intermediate Examination, see § IV.

THIRD YEAR.

GREEK.—LYSIAS.—Contra Eratosthenem.
EURIPIDES.—Medea.

Or, instead of Greek :—

LATIN.—JUVENAL.—Satires VIII and XIII.
PLINY.—Select Letters.
Latin Prose Composition.

NATURAL PHILOSOPHY.—MATHEMATICAL PHYSICS.—GALBRAITH AND HAUGHTON'S Mechanics, viz, *Statics*, First three chapters, omitting sec. 5, chapter I., and sec. 21, chapter II.; *Dynamics*, subjects of the first five chapters. Maxwell's Matter and Motion (parts). GALBRAITH AND HAUGHTON'S Hydrostatics.

In addition to the above, the Student must take three subjects out of the two following divisions, headed Literature and Science respectively, the selection being at the option of the Student, provided two be taken from one division and one from the other.

I. Literature, &c.

LATIN OR GREEK.—As above, according as Greek or Latin has been chosen previously.

ENGLISH AND RHETORIC.—(A) CHAUCER'S Prologue to Canterbury Tales, ed. Morris. (B) BAIN'S Rhetoric.

MENTAL PHILOSOPHY.—First Term:—The Logic of Induction, as in MILL'S System of Logic, Book III. Second Term:—The Psychology of Cognition, as in MURRAY'S Handbook of Psychology, Book II., Part I.

FRENCH.—(If taken in the first two years). CORNEILLE, Le Cid.—Cogery—Third French course. Translation into French—Johnson, Rasselas. French Composition. Dictation.—CONTANSEAU, Précis de Littérature française, depuis le XVIIe siècle jusqu'à nos jours.

GERMAN.—(If taken in the first two years).—VANDERSMISSEN AND FRASER'S German Grammar; SCHILLER—Siege of Antwerp; LESSING—Minna von Barnhelm; History of German Literature; German composition; Dictation.

HEBREW.—(For Theological Students).—*Advanced Course.*—Gesenius' Grammar—Harper's Elements of Syntax. Exercises continued.—Translation from the Old Testament.—Reading of the Masoretic notes.

II. Science.

†OPTICS AND DESCRIPTIVE ASTRONOMY.—Optics (Galbraith and Haughton). Descriptive Astronomy (Lockyer's Elementary Astronomy). English edition; first five chapters. Students are recommended to use with this an "Easy Guide to the Constellations," by Gall.

†EXPERIMENTAL PHYSICS.—Heat, Light and Sound; as in Ganot's Treatise.

ZOOLOGY.—Elementary Physiology, Embryology, morphology, development and classification of vertebrate and invertebrate forms; weekly demonstrations.

FOURTH YEAR.

GREEK.—DEMOSTHENES.—The Olynthiacs.

Or, instead of Greek:—

LATIN.—TACITUS.—Annals, Book II.
Latin Prose Composition.

NATURAL PHILOSOPHY.—*Mathematical Physics.* Mechanics and Hydrostatics (as in Third Year), or Astronomy (GALBRAITH AND HAUGHTON OR BRINKLEY) and Optics (GALBRAITH AND HAUGHTON).

MORAL PHILOSOPHY.—First Term:—The Psychological Basis of Ethics. Second Term:—Ethics Proper, comprising the elementary principles of Jurisprudence and Political Science. *Text-Book:*—Murray's Introduction to Ethics.

In addition to the preceding, the Student must take three subjects out of the two following divisions (headed Literature and Science respectively), the selection being at the option of the Student, provided all three are not taken out of the same division.

I. Literature, etc.

LATIN OR GREEK.—As above, according as Greek or Latin has been taken above.

HISTORY.—Lectures on the History of Europe from the downfall of the Roman Empire of the West to the Reformation. *Text-Books:*—MYERS,

Mediæval and Modern History, pp. 1-398; BRYCE, Holy Roman Empire (omit chaps. 6, 8, 9, 13, and Supplementary chapter).

FRENCH.—(If taken in Third Year.)—Bonnefon, Les Ecrivains modernes de la France. Translation into French. Morley's Ideal Commonwealths. Dictation. CORNEILLE, Le Cid.

GERMAN.—(If taken in Third Year.)—Goethe—Aus meinem Leben; SCHILLER—Wallenstein; German Grammar and Composition; Dictation; History of German Literature.

HEBREW.—(For Theological Students.)— Advanced Course continued.

II. Science.

†ASTRONOMY AND OPTICS.—If not chosen as above.

†EXPERIMENTAL PHYSICS.—Electricity and Magnetism, as in GANOT'S Treatise.

MINERALOGY AND GEOLOGY.—1. *Mineralogy and Petrography.* Minerals and rocks, especially those important in Geology or useful in the Arts. 2. *Stratigraphy, Chronological Geology and Palæontology.*—Data for determining the relative ages of Formations. Classification according to age. Fauna and Flora of the successive periods. Geology of British America. *Text-Book.*—Dawson's Handbook of Canadian Geology.

For the B.A. Examinations see § IV.

NOTE ON THE ORDINARY COURSE FOR B.A.

Instead of two distinct subjects in one of the above divisions in either Third or Fourth Year, the student may select one subject only, together with an *Additional Course* in the same or any other of his subjects in which such Additional Course may have been provided by the Faculty, under the above rules, provided he has been placed in the first class in the corresponding subject at the preceding Sessional Examination (viz., Intermediate or Third Year, according to standing).

The Additional Course is intended to be more than an equivalent in the amount of work involved for any of the other subjects in the division.

(For details of additional courses provided, see under Section XIII.)

Undergraduates are required to study either French or German for two years (viz., in the First and Second Years), taking the same language in each year. Any Student failing to pass the Examination at the end of the Second Year will be required to pass a Supplemental Examination, or to take an additional Session in the language in which he has failed. In addition to the obligatory, there are other lectures, attendance on which is optional.

Students who intend to join any Theological School, on giving written notice to this effect at the beginning of the First Year, may take Hebrew instead of French or German.

Undergraduates who have been previously Partial Students, and have in this capacity attended a particular Course or Courses of Lectures, may, at the discretion of the Faculty, be exempted from further attendance on these Lectures but no distinction shall in consequence be made between the Examination of such Undergraduates and of those regularly attending Lectures.

† Students claiming exemptions (see § V.) cannot count these subjects for the B.A. if they have not taken the Third Year Mathematical Physics.

HONOUR COURSES.

Third and Fourth Years.

1. Classical Languages and Literature.
2. Mathematics and Physics.
3. Mental and Moral Philosophy.
4. English Language, Literature and History.
5. Geology and other Natural Sciences.
6. Modern Languages with History
7. Semitic Languages.

Honours are given in Mathematics in the First and Second Years also.

Candidates for Honours are allowed exemptions under conditions stated in §V.

§ IV. EXAMINATIONS.

COLLEGE EXAMINATIONS.

For Students of McGill College only.

1. There are two examinations in each year—one at Christmas and the other at the end of the Session. In each of these the Students who pass are arranged according to their answering as 1st Class, 2nd Class and 3rd Class.

In the Fourth Year only, the University Examination for B.A. takes the place of the Sessional Examinations.

2. Students who fail in any subject at the Christmas Examinations are required to pass a Supplemental Examination (if permission be obtained from the Faculty) on that subject before admission to the Sessional Examinations.

3. Undergraduates who fail in one subject at the Sessional Examinations of the first two years are required to pass a Supplemental

Examination in it. Should they fail in this, they will be required in the following Session to attend the Lectures and pass the Examination in the subject in which they have failed, in addition to those of the Ordinary Course, or to pass the Examination alone without attending lectures, at the discretion of the Faculty.

4. Failure in two or more subjects at the Sessional Examinations of the first two years, or in one subject at the third year Sessional Examinations, involves the loss of the Session. The Faculty may permit the student to recover his standing by passing a Supplemental Examination at the beginning of the ensuing Session. For the purpose of this Regulation, Classics and Mathematics are each regarded as two subjects.

5. A list of those to whom the Faculty may grant Supplemental Examinations will be published after the examination. The time for the Supplemental Examination will be fixed by the Faculty; the examination will not be granted at any other time, except by special permission of the Faculty, and on payment of a fee of $5.

UNIVERSITY EXAMINATIONS.

For Students of McGill College and of Colleges affiliated in Arts

I. FOR THE DEGREE OF B.A.

There are three University Examinations: The *Matriculation*, at entrance; the *Intermediate*, at the end of the Second Year; and the *Final*, at the end of the Fourth Year.

1. The subjects of the Matriculation Examination are stated in Section I.

2. In the Intermediate Examination, the subjects are Classics and Pure Mathematics, Logic, and the English Language, with one other Modern Language, or Botany. Theological Students are allowed to take Hebrew instead of a Modern Language. The subjects for the examination of 1895 are as follows:—

Classics.—Greek.—Plato, Apology; Aeschylus, Prometheus Vinctus. Latin.—Horace, Epistles, Bk. I.—Livy, Bk. XXI. Latin Prose Composition, and Translation at sight of Latin into English.

Mathematics.—Arithmetic.

Euclid, Books I., II., III., IV., VI., and defs. of Book V.
Algebra, to Quadratic Equations inclusive (as in Colenso).
Trigonometry, including use of Logarithms.

Logic.—Jevons' Elementary Lessons in Logic.

English.—Spalding's History of English Literature, or Lectures (see course). A paper on the essentials of English History (Buckley). Essay on a subject to be given at the time of the Examination.
With one of the following :—

1. *Botany.*—Structural and Systematic Botany, as in Gray's Text-Book, with descriptive analysis of plants.

2. *French.*—Ponsard :—l'Honneur et L'Argent. Racine :—Esther. Contanseau :—Précis de la Littérature française from the beginning to the XVIIIth century. Translation into French :—Rasselas. Grammatical questions.

3. *German.*—Vandersmissen & Fraser's German Grammar ; Joynes' German Reader ; Freytag—Die Journalisten ; Uhland—Ballads and Romances (Macmillan's Foreign School Classics) ; Translation at sight ; Dictation ; Colloquial exercises.

4. *Hebrew.*—Genesis—chap. III., IV. Exodus—chap. X., XI. Deuteronomy, —chap. V. Exercises : Hebrew into English, and English into Hebrew. Syntax. Reading of the Masoretic notes, the Septuagint version and the Vulgate.

3. For the Final or B.A. Ordinary Examination the subjects are those appointed as obligatory in the Third and Fourth Years, viz., Latin or Greek ; Mathematical Physics (Mechanics and Hydrostatics), or Astronomy and Optics ; Moral Philosophy ; and those three subjects which the Candidate may have selected for himself in the Third and Fourth Years. (See § III.)

The subjects in detail for 1895 are as follows :—

1. *Greek.*—Demosthenes, The Olynthiacs ; Euripides, Medea.

(Or Latin, as follows) :—

2. *Latin.*—Tacitus, Annals, Book II. ; Juvenal, Satt. VIII. and XIII.

Mathematical Physics.

1. Mechanics and Hydrostatics, as in Galbraith & Haughton's text-books, with parts of Maxwell's "Matter and Motion" ; or *Optics and Astronomy.

Mental and Moral Philosophy.

Murray's Introduction to Ethics,
*Additional Courses as in § XIII.

Natural Science.

Mineralogy and Geology, as in Dana's Manual and Dawson's Handbook of Canadian Geology.

*Practical Geology and Palæontology; or Practical Chemistry, as in § XIII.

Experimental Physics.

Electricity and Magnetism. (See courses of Lectures § XIII.)

History.

Myers :—Mediæval and Modern History; Bryce's Holy Roman Empire (omit Chaps. 6, 8, 9, 13, and Supplementary Chapter).

*Additional Course as in § XIII.

French.

The Course of French for the Fourth Year.

*The subjects of the Additional Course as in § XIII.

German.

The course of German for the Fourth Year.

*Additional Course as in § XIII.

Hebrew (Theological Students).

Isaiah LIII; Ezekiel XXXVII; Job XXXVIII to XLII; Psalms XXXI to XXXV. Translation at sight.

Gesenius' Grammar; Harper's Elements of Syntax; Reading of the Masoretic notes, the Septuagint Version and the Vulgate.

Additional Courses (see § XIII.).

For details of each subject, see Courses of Lectures, § XIII.

At the B.A. Ordinary Examination, of the Candidates who obtain the required aggregate marks, only those who pass in the First Class in three of the departments, and not less than Second Class in the remainder, shall be entitled to be placed in the First Class for the Ordinary Degree.

4. Every Candidate for the Degree of B.A. is required to make and sign the following declaration :—

"Ego———polliceor sancteque recipio me. pro meis viribus studiosum fore communis hujus Universitatis boni, et operam daturum ut ejus decus et dignitatem promoveam.'

II. FOR THE DEGREE OF M.A.

1. A Candidate must be a Bachelor of Arts of at least three years standing.

Thesis.

2. He is required to prepare and submit to the Faculty a thesis on some literary or scientific subject, under the following rules :—

(*a*) The subject of the thesis must be submitted to the Faculty before the thesis is presented.

(*b*) A paper read previously to any association, or published in any way, cannot be accepted as a thesis.

(*c*) The thesis submitted becomes the property of the University, and cannot be published without the consent of the Faculty of Arts.

(*d*) The thesis must be submitted before some date to be fixed annually by the Faculty, not less than two months before proceeding to the Degree.

The last day in the session of 1894-95 *for sending in Theses for M.A. will be Jan.* 31*st*, 1895.

Examination.

3. All Candidates, except those who have taken First or Second Rank B.A. Honours, or have passed First Class in the Ordinary Examinations for the Degree of B.A., are required to pass an examination also, either in Literature or in Science, as each Candidate may select.

(*a*) The subjects of the Examination in *Literature* are divided into two groups as follows :—

Group A.—1. Latin. 2. Greek. 3. Hebrew.

Group B.—1. French. 2. German. 3. English.

(*b*) The subjects for the Examination in *Science* are divided into three groups ;—

Group A.—Pure Mathematics (Advanced or Ordinary). 2. Mechanics (including Hydrostatics). 3. Astronomy. 4. Optics.

Group B.—1. Geology and Mineralogy. 2. Botany. 3. Zoology. 4. Chemistry.

Group C.—1. Mental Philosophy. 2. Moral Philosophy. 3. Logic. 4. History of Philosophy.

(*c*) Every candidate in Literature is required to select two subjects out of one group in the literary section, and one out of the other group in the same section for the Examination. Every Candidate in Science is required to select two out of the three groups in the Scientific section; and in one of the groups so chosen to select two subjects, and in the other group one subject for Examination.

(*d*) One of the subjects selected as above will be considered the principal subject (being so denoted by the candidate at the time of application), and the other two as subordinate subjects.

(*e*) The whole examination may be taken in one year, or distributed over two or three years, provided the examination in any one subject is not divided.

For further details of the examination, application must be made to the Faculty before the above date. For fees, see § XII. (In case of failure, the candidate may present himself in a subsequent year without further payment of fees.)

Lectures to Bachelors of Arts.

Lectures are open to Bachelors of Arts who are candidates for M.A., the sessional examinations corresponding to these lectures being reckoned as parts of the M.A. examination. The subjects are Greek, Latin, English, Mental and Moral Philosophy, Chemistry, Botany, Geology and Mineralogy, French, German.

III. FOR THE DEGREE OF LL.D.

This Degree is intended as an incentive to and recognition of special study by Masters of Arts in some branch of Literature or Science. The thesis or short printed treatise referred to below is regarded as the chief test of the candidate's mastery of the subject he has chosen and of his power of handling it. A very wide range of choice is allowed in order to suit individual tastes.

The following are the regulations :—

I. Candidates must be Masters of Arts of at least twelve years standing. Every candidate for the Degree of LL.D. in course is required to prepare and submit to the Faculty of Arts, not less than three months before proceeding to the degree, twenty-five printed copies of a thesis on some Literary or Scientific *subject pre-*

previously approved by the Faculty, and possessing such a degree of Literary or Scientific merit, and evidencing such originality of thought or extent of research as shall, in the opinion of the Faculty, justify it in recommending him for that degree.

N.B.—The subject should be submitted before the Thesis is written.

II. Every Candidate for the Degree of LL.D. in Course is required to submit to the Faculty of Arts, with his thesis, a list of books, treating of some one branch of Literature or of Science, satisfactory to the Faculty, in which he is prepared to submit to examination, and on which he shall be examined, unless otherwise ordered by vote of the Faculty. For fees, see § XII.

IV. SPECIAL PROVISIONS FOR CANDIDATES FOR HONOURS AND FOR PROFESSIONAL STUDENTS.

The Honour lectures are open to Undergraduates only, and no Undergraduate is permitted to attend unless (*a*) he has been placed in the First Class in the subject at the preceding Sessional Examination, if there be one, and has (*b*) satisfied the Professor that he is otherwise qualified. (*c*) While attending lectures his progress must be satisfactory to the Professor; if not satisfactory, he may be notified by the Faculty to discontinue attendance.

I. Candidates for Honours in the Second Year.

Candidates for Honours in the Second Year have obtained Honours in the First Year may omit the lectures and examinations either in Modern Languages (or Hebrew) or Botany, giving notice of the subject at the beginning of the session.

II. Candidates for Honours in the Third Year.

Every Candidate for Honours in the Third Year must, in order to obtain exemptions, have passed the Intermediate Examination, and must in the Examinations of the Second Year have taken First Rank Honours, if Honours be offered in the subjects, or if not, First Class at the Ordinary Sessional Examinations in the subject in which he proposes to compete for Honours, and be higher than Third Class in the majority of the remaining subjects; such Candidates shall be entitled in the Third Year to exemption from lectures and examinations in any one of the subjects required by the general rule (see § III.) except that in which he is a Candidate for Honours. A Candidate for Honours in the Third Year who has failed to obtain Honours shall be required to take the same examinations for B.A. as the ordinary Undergraduates.

III. Candidates for B.A. Honours.

A Student who has taken Honours of the first rank in the Third Year, and desires to be a Candidate for B.A. Honours, shall be required to attend two only of the courses of lectures given in the ordinary departments, and to pass the two corresponding examinations only at the ordinary B.A. Examination. Candidates, however, who at the B.A. Examinations obtain Third Rank Honours, will not be allowed credit for these exemptions at the end of the Session, unless the Examiners certify that the knowledge shown of the whole Honour Course (Part II. as well as Part I.) is sufficient to justify it. A Student who has taken Second Rank Honours in the Third Year, and desires to be a Candidate for B.A. Honours in the same subject, shall be allowed to continue in the Fourth Year the study of the same departments that he has taken in the Third Year, but shall be required to take the same number of subjects as in the Ordinary Course.

NOTE.—For subjects of Ordinary Course see § III.

IV. Professional Students.

Students of the Third and Fourth Years, matriculated in the Faculties of Law, Medicine, or Applied Science, of the University, or in any affiliated Theological College, are entitled to exemption from any one of the Ordinary subjects required in the Third and Fourth Years. (For rule concerning "Special Certificates," see § IV.)

To be allowed these privileges in either year, they must give notice at the commencement of the session to the Dean of the Faculty of Arts of their intention to claim exemptions as Professional Students, and must produce at the end of the session certificates of attendance on a full course of Professional Lectures during the year for which the exemption is claimed.

V. Students of the University attending Affiliated Theological Colleges.

1. These students are subject to the regulations of the Faculty of Arts in the same manner as other Students.

2. The Faculty will make formal reports to the Governing body of the Theological College which any such students may attend, as to:—(1) their conduct and attendance on the classes of the Faculty; and (2) their standing in the several examinations; such reports to be furnished after the Christmas and Sessional Examinations severally, if called for.

3. Undergraduates are allowed no exemptions in the course for the Degree of B.A. until they have passed the Intermediate Examination: but they may take Hebrew in the First or Second Years, instead of French or German.

4. In the Third and Fourth Years they are allowed exemptions, as stated above.

*Any student who, under any of the above rules, desires to take Experimental Physics is required to take Mechanics and Hydrostatics also, in the Third Year.

§ VI. MEDALS, HONOURS, PRIZES AND CLASSING.

1. Gold Medals will be awarded in the B.A. Honour Examinations to Students who take the highest Honours of the First Rank in the subjects stated below, and who shall have passed creditably the Ordinary Examinations for the Degree of B.A., provided they have been recommended therefor to the Corporation by the Faculty on the report of the Examiners:—

The *Henry Chapman Gold Medal*, for Classical Languages and Literature.

The *Prince of Wales Gold Medal*, for Mental and Moral Philosophy.

The *Anne Molson Gold Medal*, for Mathematics and Natural Philosophy.

The *Shakespeare Gold Medal*, for the English Language, Literature and History.

The *Logan Gold Medal*, for Geology and other Natural Sciences.

Major Hiram Mills Gold Medal, for a subject to be chosen by the Faculty from year to year.

If there be no candidate for any Medal, or if none of the candidates fulfil the required conditions, the Medal will be withheld, and the proceeds of its endowment for the year may be devoted to prizes in the subject for which the Medal was intended. For details, see announcements of the several subject below.

2. Honours of First, Second or Third Rank will be awarded to those Undergraduates who have successfully passed the Examinations in any Honour Course established by the Faculty, and have also passed creditably the ordinary Examinations in all the subjects proper to their year.

The Honour Examinations are each divided into two parts, separated by an interval of a few days, under the following regulations:—

(*a*) No Candidate will be admitted to Part II., unless he has shown a thorough and accurate knowledge of the course appointed for Part I.

(*b*) The names of the successful Candidates in Part I. will be announced before Part II. begins.

(*c*) First or Second Rank Honours will be awarded to those Candidates only who are successful in Part II.

(*d*) Third Rank Honours will be awarded to those who are successful in Part I alone.

By an Order of the Lieutenant-Governor of Ontario in Council, Honours in this University confer the same privileges in Ontario as Honours in the Universities of that Province as regards certificates of eligibility for the duties of Public School Inspectors, and as regards exemption from the non-professional Examination of Teachers for first-class Certificates for Grades "A and B."

3. SPECIAL CERTIFICATES will be given to those Candidates for B.A. who shall have been placed in the First Class at the ordinary B.A. Examination; have obtained three-fourths of the maximum marks in the aggregate of the studies proper to their year; are in the First Class in not less than half the subjects, and have no Third Class. At this examination, no Candidate who has taken exemptions (see § V.) can be placed in the first-class unless he has obtained First Class in four of the departments in which he has been examined; he must have no Third Class.

4. CERTIFICATES of High General Standing will be granted to those Undergraduates of the first two years who have obtained three-fourths of the maximum marks in the aggregate of the studies proper to their year, are in the First Class in not less than half the subjects, and have not more than one Third Class. In the Third Year the conditions are the same as for the Special Certificate for B.A.

5. PRIZES OR CERTIFICATES will be given to those Undergraduates who may have distinguished themselves in the studies of a particular class and have attended all the other classes proper to their year.

6. His Excellency the Earl of Aberdeen has been pleased to offer a GOLD MEDAL for the study of Modern Languages and Literature, with History, or for First Rank General Standing, as may be announced.

(*a*) The Regulations for the former are as follows :—

(1) The subjects for competition shall be French and German, together with a portion of the History prescribed for the present Honour Course for the Shakspeare Medal. Information concerning the History may be obtained from the Lecturer on History.

(2) The Course of Study shall extend over two years, viz., the Third and Fourth Years.

(3) The successful Candidate must be capable of speaking and writing both languages correctly.

(4) There shall be examinations in the subjects of the course in both the Third and Fourth Years, at which Honours may be awarded to deserving Candidates.

(5) The general conditions of competition and the privileges as regard exemptions shall be the same as for the other Gold Medals in the Faculty of Arts.

(6) Students from other Faculties shall be allowed to compete, provided they pass the examinations of the Third and Fourth Years in the above subjects.

(7) Candidates desiring to enter on the Third Year of the Course, who have not obtained first class standing at the Intermediate or Sessional Examinations of the Second Year in Arts, are required to pass an examination in the work of the first two years of the Course in Modern Languages, if called on to do so by the Professors.

8. The subjects of Examination shall be those of the Honour Course in Modern Languages.

(*b*) The Regulations for the Gold Medal, if awarded for First Rank General Standing, are as follows :—

(1) The successful Candidate must take no exemptions or substitutes of any kind, whether Professional or Honour, in the Ordinary B.A. Examinations.

(2) He shall be examined in the following subjects:—

(*a*) *Classics* (both languages); (*b*) *Mixed Mathematics* :—*Mechanics, Hydrostatics, Optics, Astronomy* ; (*c*) *Moral Philosophy* ; and any *two* of the following subjects, or any *one* of them with its Additional Course: (*d*) Natural Science ; (*e*) Experimental Physics ; (*f*) English and History ; (*g*) French ; (*h*) German.

(3) His answering must satisfy special conditions laid down by the Faculty.

(4) The same Candidate cannot obtain the Gold Medal for First Rank General Standing and also a Gold Medal for First Rank Honours.

7. The Neil Stewart Prize of $18 is open to all Undergraduates of this, and also to Graduates of this or any other, University, studying Theology in any College affiliated to this University under the following rules :—

(1) The prize will not be given for less than a thorough examination on Hebrew Grammar passed in the First Class, in reading and translating the Pentateuch, and such poetic portions of the Scriptures as may be determined.

(2) In case competitors should fail to attain the above standard, the prize will be withheld, and a prize of $36 will be offered in the following year for the same.

[Course for the present year :—Hebrew Grammar (Gesenius) ; Translation and analysis of Exodus ; Isaiah XL. to the end of the book.]

(3) There will be two Examinations of three hours each—one in Grammar and the other in Translation and Analysis.

This Prize, founded by the late Rev. C. C. Stewart, M.A., and terminated by his death, was re-established by the liberality of the late Neil Stewart, Esq., of Vankleek Hill.

8. Early English Text Society's Prize.—The prize, the annual gift of the Early English Text Society, will be awarded for proficiency in (1) Anglo-Saxon, (2) Early English before Chaucer.

The subjects of Examination will be :—

(1) The Lectures of the Third and Fourth Years on Anglo-Saxon.

(2) Specimens of Early English, Clarendon Press Series, ed. Morris and Skeat, Part II., A.D. 1298—A.D. 1393. The Lay of Havelock the Dane (Early English Text Society, ed. Skeat).

9. New Shakspere Society's Prize.—This Prize, the annual gift of the New Shakespeare Society, open to Graduates and Undergraduates, will be awarded for a critical knowledge of the following plays of Shakspere :—

Hamlet ; Macbeth ; Othello ; King Lear.

10. "Charles G. Coster Memorial Prize."—This Prize, intended as a tribute to the memory of the late Rev. Chas. G. Coster, M.A., Ph.D., Principal of the Grammar School, St. John, N.B., is offered by Colin H. Livingstone, Esq., B.A., to the Undergraduates (men or women) from the Maritime Provinces, Nova Scotia, New Brunswick and Prince Edward Island. In April, 1895, it will be awarded to that Undergraduate of the First, Second or Third Year, from the above Provinces, who, in the opinion of the Faculty, has passed the most satisfactory Sessional Examinations, under certain conditions laid down by the donor.

11. Science Scholarships Granted by Her Majesty's Commission for the Exhibition of 1851.—These scholarships of £150 sterling a year in value are tenable for two or, in rare instances, three years. They are limited, according to the Report of the Commission "to those branches of Science (such as Physics, Mechanics and Chemistry) the extension of which is specially important for our national industries." Their object is, not to facilitate ordinary collegiate studies, but "to enable students to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country."

Two nominations to these scholarships have already been

placed by the Commission in 1801 and 1803 at the disposal of McGill University, and have been awarded.

When nominations are offered, they are open to Students of not less than three years standing in the Faculties of Arts or Applied Science, and are tenable at any University or at any other Institution approved by the Commission.

12. The names of those who have taken Honours, Certificates or Prizes will be published in order of merit, with mention, in the case of Students of the First and Second Years, of the schools in which their preliminary education has been received.

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§ VII. BOARDING HOUSES.

Board and rooms can be obtained at a cost of from $15 to $25 per month: Rooms only, from $4 to $10 per month: Board only, from $12 to $18 per month.

Students can obtain a list of Boarding Houses on application to the Secretary.

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§ VIII. ATTENDANCE AND CONDUCT.

All Students shall be subject to the following regulations for attendance and conduct:—

1. A Class-book shall be kept by each Professor or Lecturer, in which the presence or absence of Students shall be carefully noted; and the said Class-book shall be submitted to the Faculty at all their ordinary meetings during the Session.

2. Each Professor shall call the roll immediately at the beginning of the lecture. Credit for attendance on any lecture may be refused on the grounds of

lateness, inattention or neglect of study, or disorderly conduct in the class-room. In the case last mentioned, the student may, at the discretion of the Professor, be required to leave the class-room. Persistence in any of the above offences against discipline, after admonition by the Professor, shall be reported to the Dean of Faculty. The Dean may, at his discretion, reprimand the student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from Classes.

3. Absence from any number of lectures can only be excused by necessity or duty, of which proof must be given, when called for, to the Faculty. The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a session shall in each case be determined by the Faculty.

4. While in the College, or going to or from it, students are expected to conduct themselves in the same orderly manner as in the class rooms. Any Professor observing improper conduct in the College buildings or grounds may admonish the student, and, if necessary, report him to the Dean.

5. Every student is required to attend regularly the religious services of the denomination to which he belongs, and to maintain, without as well as within the walls of the College, a good moral character.

6. When students are brought before the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, impose fines, disqualify from competing for prizes or honors, suspend from classes, or report to the Corporation for expulsion.

7. Any student who does not report his residence on or before November 1st in each year is liable to a fine of one dollar.

8. Any student injuring the furniture or buildings will be required to repair the same at his own expense, and will, in addition, be subject to such other penalty as the Faculty may see fit to inflict.

9. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be immediately reported to the Principal, or, in his absence, to the Vice-Principal.

[NOTE.—All Students are required to appear in Academic dress while in or about the College buildings. Students are requested to take notice that petitions to the Faculty on any subject cannot, in general, be taken into consideration, except at the regular meetings appointed in the Calendar.]

§ IX. LIBRARY.

Librarian:—C. H. Gould, B.A.

Assistant Librarian:—H. Mott.

Extract from the Regulations.

1. The books in the Library are classed in two divisions:—1st, Those which may be lent; and 2nd, those which may not, under any circumstances, be removed from the Library. The classification shall be determined by the Librarian.

2. Students in the Faculty of Arts or of Applied Science, who have paid the Library fee, may borrow books on depositing the sum of $5 with the Bursar, which deposit, after the deduction of any fines due, will be repaid at the end of the session on the certificate of the Librarian or his assistant that the books have been returned uninjured.

3. Students may borrow not more than three volumes at one time, except on the recommendation in writing of a Professor for specified books, and must return them within two weeks, on penalty of a fine of 5 cents a volume for each day of detention. An additional deposit of $4 entitles a student to borrow two extra volumes.

4. A student incurring fines beyond the sum total of $1 shall be debarred the use of the Library until they have been paid.

5. Any volume, or volumes, lost or damaged by any person shall be replaced or paid for at such rates as the Library Committee may direct; and such rate of payment shall be determined by the value of the book itself, or of the set to which the volume belongs. And, further, any person found guilty of wilfully damaging any book, either by defacement or mutilation, or in any other way shall be excluded from the Library, and shall be debarred from the use thereof for such time as the Library Committee may determine.

6. Graduates in any of the Faculties, on making a deposit of $5, are entitled to the use of the Library, subject to the same rules and conditions as Students; but they are not required to pay the annual Library fee.

7. Graduates residing beyond the City limits, and applying for the loan of books from the Library, shall not receive such books without the sanction of the Librarian, and depositing the value of the books with the Bursar of the College.

8. Members of the McGill College Book Club, on presenting annually a certificate of their membership, are by special regulation of Corporation entitled to the use of Library on the same conditions as Graduates, but they are not required to make a deposit.

9. Students in the Faculties of Law and Medicine, who have paid the Library fee to the Bursar, may read in the Library, and, on depositing the sum of $5 with the Bursar, may borrow books on the same conditions as Students in Arts. They are required to present their Matriculation Tickets to the Bursar and to the Librarian or his assistant.

10. Persons not connected with the College may consult books in the Library on obtaining an order from any of the Governors, or from the Principal, or the Dean of the Faculty of Arts or of Applied Science, or from any of the Professors in the said Faculties. Donors of books or money to the amount of fifty dollars may at any time consult books on application to the Librarian.

11. The Library is kept open from 9 a.m. to 6 p.m. and from 8 p.m. to 10 p.m. daily, during the Session except on Saturdays. During the summer the hours are from 9.00 a.m. to 5.00 p.m., and no person is allowed in the Library except during these hours.

12. A person desiring to read or to borrow a book, which he has ascertained from the Catalogue to be in the Library, will fill up one of the blank forms provided for Readers and Borrowers respectively, and hand it to a Library Assistant, who will thereupon procure him the book.

13. Readers must return the books they have obtained to a Library Assistant before leaving the Library.

14. No conversation is permitted in the Library.

§ X. PETER REDPATH MUSEUM.

1. The Museum will open every lawful day from 9 a.m. till 5 p.m., except when closed for any special reason by order of the Principal or Committee.

2. Students will obtain tickets of admission from the Principal on application.

3. Students will enter by the front door only, except when going to lectures.

4. Any students wilfully defacing or injuring specimens, or removing the same, will be excluded from access to the Museum for the session.

§ XI. McDONALD PHYSICS BUILDING.

The Building contains five storeys, each of 8,000 square feet area. Besides a lecture theatre and its apparatus rooms, it includes an elementary laboratory nearly 60 feet square; large special laboratories arranged for higher work by advanced students in Heat and Electricity, a range of rooms for optical work and photography; separate rooms for private thesis work by students; and two large laboratories arranged for research, provided with solid piers and the usual standard instruments. There are also a lecture room, with apparatus room attached, for Mathematical Physics, a special physical library, and convenient workshops. The equipment is on a corresponding scale, and comprises: (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by the students in practical work; (3) the most recent types of all the important instruments for exact measurement, by first class makers, for use in the laboratories for special work and research.

§ XII. FEES.

All fees and fines are payable to the Bursar of the College.

I. *Undergraduates.*—$37.00 per session, including Library, Gymnasium, Matriculation and the fee heretofore paid for the B.A. degree.

II. *Partial Students.*—$8.00 per session for one course of lectures including the use of the Library; $4.00 per session for each additional course.

Special Fees.

Laboratory and Practical Classes, viz., *Chemistry*, *Botany*, *Physics*, each per session (optional)	$10 00
Elocution (optional)	3 00
Petrography (optional)	$5 00
Gymnasium (for partial students) optional	2 50
Supplemental Examination, at date fixed by Faculty	2 00
Supplemental Examination, when granted at any other time than that fixed by the Faculty	5 00
Fee for a certificate of standing, if granted to a student on application	1 00
Fee for a certificate of standing, if accompanied by a statement of classification in the several subjects of examination	2 00
Examination fee for Students of Affiliated Theological Colleges who present themselves for the entrance examination without intending to become Undergraduates	10 00
Matriculation Certificate, for Students intending to enter the Medical Faculty	2 50

"Special" fees are additional to the regular fees paid by Undergraduates or Partial Students, but are payable only for the classes (optional) or objects named above.

N.B.—The lectures in one subject in any one of the four college years constitute a "Course."

Graduates in Arts are allowed to attend, without payment of fees, all lectures except those noted as requiring a special fee.

The fees must be paid to the Secretary, and the tickets shown to the Dean, within a fortnight after the commencement of attendance in each session. In case of default, the student's name will be removed from the College books, and can be replaced thereon only by permission of the Faculty, and on payment of a fine of $2.

[All fines are applied to the purchase of books for the Library.]

Fee for the degree of M.A	10 00*
" " " *LL.D*	50 00*

If the degree of M.A. be granted, with permission to the Candidate, on special grounds, to be absent from Convocation, the fee is $25.00.

The M.A. or LL.D. fee must be sent with the thesis to the Secretary of the

University. This is a condition essential to the reception of the application. The Secretary will then forward the thesis to the Dean of the Faculty.

A Bachelor of Arts or a Master of Arts intending to proceed to a higher Degree is required, *in addition* to the above, to keep his name on the books of the University, by the annual payment of a fee of $2 to the Registrar of the University. He may, if he prefer it, compound for the above annual fees, by the payment of $6 in one sum for the Master's Degree, or $30 for the Doctor Degree, on or before the date of application for the Degree.

Extract from the Regulations of the Board of Governors for Election of Fellows under Chap. V. of the Statutes of the University.

"From and after the graduation of 1888, all new Graduates shall "pay a Registration Fee of $2.00 at the time of their graduation, "in addition to the Graduation Fee; and shall be entered in the "University list as privileged to vote, and shall have voting-papers "mailed to them by the Secretary."

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§ XIII. COURSES OF LECTURES.

I. ORDINARY COURSE.

1. CLASSICAL LITERATURE AND HISTORY.

(Major H. Mills Professorship of Classics.)

Professor:—Rev. G. Cornish, M.A., LL.D.

Associate Professor:—A. J. Eaton, M.A., Ph.D.

Sessional Lecturer:—John L. Day, B.A.

GREEK.

First Year.—Homer.—Odyssey, Bk. XI. Xenophon.—Hellenics, Book I.
Second Year.—Plato.—Apology. Aeschylus.—Prometheus Vinctus. History of Greece.
Third Year.—Lysias.—Contra Eratosthenem. Euripides.—Medea.
Fourth Year.—Demosthenes.—The Olynthiacs.

LATIN.

First Year.—Cicero.—De Amicitia. Sallust.—Catiline. Virgil.—Aeneid, Book VI. Latin Prose Composition and Translation at Sight.—Bender's Roman Literature.—History of Rome.

Second Year.—Livy. Bk. XXI.—Horace, Epistles, Bk. I. Translation at sight of passages from Cicero and Livy, and Latin Prose Composition based upon selections from the same authors.

Third Year.—Juvenal.—Satires VIII. and XIII. Pliny, Select Letters. Latin Prose Composition.

Fourth Year.—Tacitus.—Annals, Book II. Latin Prose Composition.

In the work of the Class the attention of the student is directed to the collateral subjects of History, Antiquities and Geography; also to the grammatical structure and affinities of the Greek and Latin Languages, and to Prosody and Accentuation.

The Latin pronunciation adopted in the lectures is based on the scheme issued by the Cambridge Philological Society (London: Trubner & Co.).

In Greek, the system of pronunciation, outlined in the preface of Goodwin's Greek Grammar, is recommended to the attention of students.

Number of lectures in Fourth Year—two weekly, or, at the discretion of the Professor, three.

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2. ENGLISH LANGUAGE AND LITERATURE.

(Molson Professorship.)

Professor:—Chas. E. Moyse, B.A.

Lecturer:—C.W. Colby, B.A.

First Year.—English Language and Literature. Three lectures a week. Until Christmas the work of the Class will consist of exercises in English Composition once a week. Two lectures a week will be given to the study of English. After Christmas the course on English Literature will be continued and brought down to the end of the Elizabethan Period. Students are recommended to use Prof. Henry Morley's Charts of English Literature, and to read the first chapter of Henry Morley's English Writers (Cassell, 1887).*

Second Year.—A period of English Literature, one play of Shakspeare and a modern poem. One lecture a week before Christmas; two lectures a week after Christmas. During the session of 1894-95, the leading poets of the Nineteenth Century will form the subject of the Lectures. Shakspeare—A Midsummer Night's Dream (Clarendon Press Edition). Tennyson—Gareth and Lynette.

Third Year:—A. Chaucer's Prologue to Canterbury Tales. Lectures once a week; *Text-Book*: — Chaucer's Prologue, etc., ed. Morris. *B.* Rhetoric. Lecture once a week; *Text-Books*:—Genung's Rhetoric.

Fourth Year.—History. The lectures (once a week) will be a sketch of general European History from the Fall of the Roman Empire of the West to the Discovery of the New World. The use of Professor Nichol's Tables of European History is recommended.

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3. MENTAL AND MORAL PHILOSOPHY.

(John Frothingham Professorship of Mental and Moral Philosophy.)

Professor:—Rev. J. Clark Murray, LL.D.

Lecturer:—Paul T. Lafleur, M.A.

Second Year.—First term.—Elementary Psychology. (*Text-Book*:—Murray's

Handbook of Psychology, Book I.) Second Term:—Logic. (*Text-Book:* —Jevons' Elementary lessons in Logic.)*

Third Year.—First Term:—The Logic of Induction, as in Mill's System of Logic, Book III. Second Term:—The Psychology of Cognition, as in Murray's Handbook of Psychology, Book II., Part I.

Fourth Year.—First Term:—The Psychological Basis of Ethics. Second Term: —Ethics Proper, comprising the elementary principles of Jurisprudence and Political Science. *Text-Book:*—Murray's Introduction to Ethics.

In the Third and Fourth Years, students are also required to write occasional essays on philosophical subjects.

For Additional Courses see Honour Course.

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4. FRENCH LANGUAGE AND LITERATURE.

Professor:—P. J. Darey, M.A., B.C.L., LL.D., Officier d'Académie.

Sessional Lecturer:—Rev. J. L. Morin, M.A.

First Year.—Darey—Principes de Grammaire française. La Fontaine—Choix de fables. Molière—l'Avare. Dictation. Colloquial exercises.

Second Year.—Racine—Esther. Ponsard—l'Honneur et l'Argent. Contanseau —Précis de Littérature Française, depuis son origine jusqu'à la fin du XVIIe siècle. Translation into French:—Dr. Johnson—Rasselas. Dictation. Parsing. Colloquial exercises.

Third Year.—Corneille, Le Cid. Cogery—Third French course. Translation into French:—Johnson—Rasselas. Dictation. Contanseau—Précis de Littérature Française, depuis le XVIIIe siècle jusqu'à nos jours.

Fourth Year.—Cogery—Third French course. Bonnefon—Les Ecrivains modernes de la France. Translation into French:—Morley—Ideal Commonwealths. French Composition. Dictation. Corneille, Le Cid.

For Additional Courses see Honour Lectures.

The Lectures in the Third and Fourth Years are given in French.

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5. GERMAN LANGUAGE AND LITERATURE.

Lecturer:—L. R. Gregor, B.A.

First Year.—Vandersmissen and Fraser's German Grammar; Joynes' German Reader; Dictation; Colloquial exercises.

Second Year.—Vandersmissen and Fraser's German Grammar; Joynes' German Reader; Freytag—Die Journalisten; Uhland—Ballads and Romance (Macmillan's Foreign School Classics); Translation at sight; Parsing; Dictation; Colloquial exercises.

Third Year.—Vandersmissen and Fraser's German Grammar; Lessing—Minna von Barnhelm; Schiller—Siege of Antwerp; History of German Literature; German Composition; Dictation.

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* The prizes are awarded on the work of the whole Session.

Fourth Year.—German Grammar and Composition; Goethe—Aus meinem Leben; Schiller—Wallenstein; History of German Literature.

For Additional Courses see Honour Lectures.

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6. HEBREW AND ORIENTAL LITERATURE.

Professor:—Rev. D. Coussirat, B.A., D.D., Officier d'Académie.

Elementary Course.—Reading and Grammar, with oral and written exercises in Orthography and Etymology.—Translation and Grammatical Analysis of Genesis.—*Text-Books.*—Harper's Elements of Hebrew; and Introductory Hebrew Method and Manual.

Intermediate Course.—Grammar.—Dr. Harper's "Elements and Method."—Translation from the Hebrew Bible.—Exercises.—Hebrew into English and English into Hebrew.—Syntax.—Reading of the Masoretic notes.

Advanced Course.—Gesenius' Grammar, and Harper's Elements of Syntax.—Exercises continued.—Translation from the Hebrew Bible.—Reading of the Masoretic notes and of the Septuagint Version.

The course comprises Lectures on the above Language and its Literature in particular, its genius and peculiarities, with a general notice of the other Oriental Languages. Comparative Philology, affinity of Roots, etc., also receive due attention, while the portions selected for translation will be illustrated and explained by reference to Oriental manners, customs, history, etc.

For Additional Course see Honour Lectures.

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7. MATHEMATICS AND ASTRONOMY.

(Peter Redpath Professorship of Pure Mathematics.)

Professor:—Alexander Johnson, M.A., LL.D.

Sessional Lecturer:—Rev. H. M Tory, B.A.

First Year.—Mathematics.—Arithmetic.—Euclid, Books, 1, 2, 3, 4, 6, with definitions of Book 5 (omitting propositions 27, 28, 29 of Book 6): Todhunter's Edition—or Hall and Stevens'; the latter is recommended to Candidates for Honours especially. Colenso's Algebra (Part I) to end of Quadratic Equations.—Galbraith and Haughton's Plane Trigonometry to beginning of solution of Plane Triangles.

Second Year.—Mathematics.—Arithmetic, Euclid, Algebra and Trigonometry as before.—Nature and use of Logarithms.—Remainder of Galbraith and Haughton's Plane Trigonometry.

Third Year.—(*Optional, but open to those only who have studied Mathematical Physics*).—Astronomy (Lockyer's Elementary Astronomy, English edition; first five chapters, viz.: The Stars and Nebulæ; The Sun; The Solar System; Apparent movements; Time) Students are recommended

to use with this an "Easy Guide to the Constellations," by Gall. This subject is taken with Optics.

Fourth Year—Astronomy.—(*Optional*) Galbraith and Haughton's Astronomy or Brinkley by Stubbs and Brunnow.—This subject is taken with Optics as one course. The lectures will be given before Christmas.

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8. NATURAL PHILOSOPHY.

(W. C. McDonald Professorships of Physics.)

Professors :— John Cox, M.A.
Hugh L. Callendar, M.A.

Second Year.—Elementary Mechanics.—One lecture a week up to March. An examination will be held then, which must be passed in order to secure credit for attendance on the lectures.

Third Year.—Mathematical Physics.—Galbraith and Haughton's Mechanics viz.: *Statics*, first 3 chapters, omitting sec. 5, chapter I, and sec. 21, chapter II; *Dynamics*, subjects of the first 5 chapters; the corresponding parts of Clerk Maxwell's "Matter and Motion"; Galbraith and Haughton's Hydrostatics. The lectures on this subject begun in the previous year will end about Christmas.

(*Optional, but open to those only who have studied the above Mathematical Physics*).—Optics (Galbraith and Haughton). The Optics and Astromony form one course.

Third Year.—Experimental Physics.—Laws of Energy.—Heat, Light, and Sound

Fourth Year.—Electricity and Magnetism.

In each year two hours a week will be devoted to fully illustrated experimental lectures on the subjects named. Courses of practical work in the Physical Laboratory in the McDonald Physics building are arranged so that experiments, chiefly quantitative, bearing on the subjects treated in the Lectures, may be performed by the Students themselves. Opportunity is given to learn the nature and use of the principal instruments employed in the exact and practical measurement of physical quantities.

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9. GEOLOGY, MINERALOGY AND PETROGRAPHY.

(Logan Professorship of Geology.)

B. J. Harrington, B.A., Ph.D., F.G.S., Professor of Mineralogy.

Frank D. Adams, M.Ap. Sc., Ph.D., F.G.S.A., Logan Prof. of Geology and Palæontology.

Fourth Year (1)—Mineralogy and Petrography.—An elementary course, in which attention is given more particularly to such minerals and rocks as are important in Geology or useful in the Arts.

(2) Structural and Dynamical Geology.—Denudation and Origin of Aqueous Deposits; Constructive Forces; Volcanoes and Earthquakes; Arrangement of Rocks on the large scale; Field Geology and Construction of Geological Maps and Sections.

(3) Chronological Geology and Palæontology.—Classification of Formations; Geological Periods; Mineralization and Classification of Fossil Remains; History of the several Periods with the Fauna and Flora of each Distribution, more especially in Canada.

Saturday excursions will be made to points of interest, and Museum demonstrations will be given.

Text-Books.—Dawson's Handbook of Geology, Dana's Manual of Mineralogy Books of reference will be indicated in the Library.

Students in Natural History are entitled to tickets of admission to the Museum of the Natural History Society of Montreal.

For Additional Departments see Honour Course, II., infra.

The Geology course is especially fitted to those students who have taken the Natural Science studies of the previous years, but others are not excluded.

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10. ZOOLOGY.

Lecturer:—W. E. Deeks, B.A., M.D.

Third Year.—This course includes:—Elementary Physiology, as laid down in Huxley's Lessons; a general account of Embryology; the morphology, development and classification of Invertebrate forms, based on Shipley's Zoology; and the comparative anatomy and classification of the Vertebrata.

In addition, weekly demonstrations are given on dry and alcoholic preparations both macro—and microscopical, illustrating the lectures. *Text-Book*:—Dawson's Handbook, with books of reference.

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11. BOTANY.

Professor:—D. P. Penhallow, B. Sc.

Demonstrator:—C. N. Derick, B.A.

Second Year.—This course is designed to give the students a thorough acquaintance with the principles of morphology and classification, the elements of histology and the most prominent physiological functions of the plant. The Flora of Canada will be given prominence as far as possible, and in descriptive work constant use will be made of the large Herbarium and of the Botanic Garden. So far as time may permit, weekly excursions will be made for field study of plants.

Text-Books.—Gray's Structural Botany. Gray's Manual. Penhallow's Classification. Penhallow's Guide to the Collection of Plants.

For the coming year, a prize of $25.00 will be offered by Mr. W. Foster Brown for the best collection of Canadian plants.

The specimens must be prepared in accordance with Penhallow's Guide to the Collection of Plants. Specimens collected by persons other than the actual competitors will not be admitted, except when obtained by exchange. Competition is open to those students only who have taken the regular course of Botany in the previous session. Cultivated plants will not be taken into consideration.

All collections will be returned after the awards have been made.

Third Year.—Additional Course. *Vegetable Anatomy.*—Two lectures with practical work each week. Microscopical manipulations, micro-chemical reactions, general histology of Spermaphytes. Microscopical Drawing.

Fourth Year.—Additional Course. *Vegetable Anatomy.*—Two lectures with practical work each week. A continuation of the Course in the Third Year embracing a study of the structure and life history of Pteridophytes Bryophytes and Thallophptes. No student will be admitted to the course in the Fourth Year without having followed that for the Third Year.

Text-Books.—Strasburger's Vegetable Histology. Goebel's Outlines of Classification and Special Morphology.

Fee for Additional Course, $10 per session for use of instruments and reagents.

A prize will be awarded to the student showing the greatest proficiency in the work of the two years.

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12. CHEMISTRY.

(David J. Greenshields Professorship of Chemistry and Mineralogy.)

Professor:—B. J. Harrington, B.A., Ph.D.

Sessional Lecturer:—Nevil Norton Evans, M.A.Sc.

First Year.—A course of Lectures preparatory to the course in Natural Science The lectures are illustrated by experiments, and treat of the Elementary Constitution of matter, the Laws of Chemical Combination by weight and volume, the Atomic Theory, Quantivalence, Chemical Formulæ and Equations, Chemical Attraction, characteristics of Acids, Bases and Salts, Compound Radicals, the preparation and properties of the principal Elements, and many of their compounds, etc. A few Lectures are usually devoted to the consideration of some of the more important Organic Substances, including Starch, Sugars, the Vegetable Acids and Alkaloids, Alcohol, etc. During the course, attention is called as far as possible to the relations of Chemistry to various manufacturing industries.

Text-Book.—Remsen's Introduction to the study of Chemistry.

Third Year.—Additional Department (*The Chemistry of the Metals, or Organic Chemistry*).—One lecture a week. (*Practical Chemistry*)—Qualitative Analysis, as in Fresenius' Qualitative Chemical Analysis, two afternoons a week.

Fourth Year.—Additional Department.—A course of Practical Chemistry, in continuation of that of the Third Year.

NOTE.—The chemical laboratories are capable of accommodating about sixty Students, and afford excellent facilities for practical work. Students in Arts taking classes in Practical Chemistry pay a special fee of ten dollars for the session.

13. METEOROLOGY.

Superintendent of Observatory:—C. H. McLEOD, MA.E.

Instructions in Meteorological Observations will be given in the Observatory at hours to suit the convenience of the senior students.

Certificates will be granted to those students who pass a satisfactory examination on the construction and use of Meteorological Instruments and on the general facts of Meteorology.

14. PEDAGOGY.

Lectures on this subject will be given in the Normal School to undergraduates of the Third and Fourth Years who wish to obtain the Provincial Academy Diploma.

Lecture hours: 3 p.m. Tuesday and Friday.

15. ELOCUTION.

Instructor:—J. P. STEPHEN.

Instruction is given in this subject at hours that may be settled at the beginning of the session. Special fee for session $3.

16. GYMNASTICS.

Instructor:—R. T. MACKENZIE, B.A., M.D.

The classes will meet at the University Gymnasium, at hours to be announced at the commencement of the Session. The Wicksteed silver and bronze medals (the gift of Dr. R. J. Wicksteed) are offered for competition to students of the Graduating Class and to students who have had instruction in the Gymnasium for two sessions,—the silver medal to the former, the bronze medal to the latter. (See Regulations appended.)

II. HONOUR COURSES.

1. CLASSICS.

THIRD YEAR.

Greek.

Greek Authors:—Plato, Apology, Crito, Laches and Euthyphro; Herodotus, Bk. VII.: Thucydides, Bk. VI.; Euripides, Medea. The Authors to be read in class will be selected at the beginning of the session.

2. *Translation at sight* from the works of Xenophon and Homer, and *Greek Prose Composition.*
3. *History of Greece* (Selections from Grote); Mahaffy's *History of Greek Literature* (Selections).
4. *General Paper* on Grammar, Antiquities, Mythology and Philology.

Latin.

1. *Latin Authors:*—Cicero, Select Letters, and De Officiis, Bk. III.; Lucretius (Selections); Sallust, Catiline and Jugurtha; Catullus (Selections); Horace, Epistles, Bks. I. and II.; Tibullus and Propertius (Selections). Livy, Bks XXI.-XXIV.
2. *Sight Translation* from Caesar, Nepos, Virgil, Ovid and Livy, and *Latin Prose Composition.*
3. *History of Rome* (Selected portions of Mommsen); Teuffel's or Cruttwell's *History of Roman Literature* (Golden Age of Roman Literature).
4. *Grammar; Mythology and Antiquities.* A paper testing the candidate's general knowledge of classical philology will be given. The following works are recommended for this purpose:
   Gow's Companion to School Classics (2nd Edition).
   Murray's Manual of Mythology. Giles, A short Manual of Philology for Classical Students. Madvig's Latin Grammar (rev. by Thacher). Guhl and Kohner's Life of the Greeks and Romans.

FOURTH YEAR.

Part I.—(1) *Greek Authors:*—Æschylus, Prometheus Vinctus; Sophocles, Antigone: Euripides, Medea; Herodotus, Bk. IX.: Xenophon, Hellenics, Bks. I. and II.; Æschines, Contra Ctesiphontem. (2) *Latin Authors:*—Horace, Epistles, Bk. I.; Juvenal, Satires VIII. and XIII.; Persius, Satires V. and VI.; Livy, Bk. XXI.; Tacitus, Annals, Bk. II.; Cicero De Officiis. (3) *Greek and Latin Prose Composition:*—As in Arnold's Greek Prose and Smith's Principia Latina, Part V. *Part II.*—(1) *Greek:*—Plato, Republic, Books I. and II.; Aristotle, The Poetics; Thucydides, Books VI. and VII.; Hesiod, Works and Days; Æschylus, Seven against Thebes: Aristophanes, The Frogs: Pindar, Olympic Odes; Theocritus, Idylls I. to VI.; Demosthenes, De Corona. (2) *Latin:*—Livy, Bks. XXII. and XXIII.: Tacitus, Annals, Book I.; Tacitus, Histories, Book I.; Virgil, Æneid, Books I. to IV.; Plautus, Aulularia; Terence, Adelphi; Juvenal, Sat. X.; Cicero De Imperio Cn. Pompeii. (3) *History of Greece and Rome:*—*Text-Books.* 1. Grote's History of Greece. 2. Arnold's History of Rome. 3. Mommsen's History of Rome. 4. Mahaffy's History of Greek Literature. 5. Cruttwell's History of Roman Literature. 6. Cruttwell and Banton's Specimens of Roman Literature. 7. Haigh's Attic Theatre. (4) *Composition:*—Composition in Greek and Latin Prose. (5) General Paper on Grammar, History and Antiquities.

2. MENTAL AND MORAL PHILOSOPHY.

THIRD YEAR.

Part I.—Schwegler's History of Philosophy, Chapters 1-21 inclusive; Mill's System of Logic, Books IV. and V.; James' Principles of Psychology, Chapters 10-16 inclusive; selected portions from Thomson's Outline of the Laws of Thought, from Jevons' Principles of Science, and from Venn's Empirical Logic. Any two of these subjects, along with the Honour Lectures, may be taken as the Additional Course.

Part II.—Plato's Theaetetus (by S.W. Dyde); Fraser's Selections from Berkeley.

FOURTH YEAR.

Part I.—Erdmann's History of Philosophy, Vol. II. (Engl. Transl.); James' Principles of Psychology, Vol. II.; Spencer's First Principles; Green's Prolegomena to Ethics; Mill's System of Logic, Book VI. Any two of these subjects along with the Honour Lectures may be taken as the Additional Course.

Part II.—Aristotle's Nicomachean Ethics; Zeller's Stoics, Epicureans and Sceptics; Spinoza's Ethics; Watson's Selections from Kant; Maine's Ancient Law.

N.B.—The class essays of Candidates for Honours are expected to display superior ability in the discussion of philosophical subjects.

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3. ENGLISH LANGUAGE, LITERATURE AND HISTORY.

THIRD YEAR.

Part I.—Early English: Morris and Skeat, Part II., Extt. I-IX. inclusives Spenser—Faerie Queene, Bk. I.; Milton—Comus; Burke—Reflections on the French Revolution; Hallam—Middle Ages, Chaps. 1, 3, 5. (The above mentioned portion of the Honour work constitutes the Additional Course of the Third Year.) Sweet's Anglo-Saxon Reader; Extt. IV., VIII. an XXI.; Dryden—Annus Mirabilis: Absolom and Achitophel, Part I.; the Preface to the "Fables;" Macaulay—Essays on Clive (Macmillan). Ranke-History of the Popes, and Warren Hastings.

Part II.—Sweet's Anglo-Saxon Reader: the pieces in verse; Chaucer—Assembly of Foules (ed. Loun-bury); Sidney—An Apology for Poetry (ed. Cook) Milton—Shorter English Poems: Areopagitica (ed. Hales): Addison—Essays on Paradise Lost and on the Imagination (Spectator); Wordsworth—Prelude (Moxon's ed.); Leslie Stephen—English Thought in the Eighteenth Century, Vol. II, chap. X., sections V. to X. inclusive; Macaulay, Vol. I., chap I.; Green, History of the English People—(Reigns of Eliz. and Chas. II.)

FOURTH YEAR.

Part I.—Sweet's Anglo-Saxon Reader, Extt. II., XIII., XX.; Pope—Essay on Criticism, Essay on Man; Shelley—Adonais; Tennyson—In Memoriam

Buckle—History of Civ. in England, 4 chaps. (The above-mentioned portion of the Honour work constitutes the Additional Course of the Fourth Year.) Early English; Morris and Skeat, Part II., Extt. X-XX inclusive; Shakspeare—Love's Labour Lost—A Midsummer Night's Dream—Hamlet; Matthew Arnold—Essays in Criticism (the second).

Part II.—Portion of Beowulf (ed. Harrison and Sharp); Sweet's Second Anglo-Saxon Reader; Vespasian Hymns; Sir Thomas More—Utopia (ed. Arber); Villiers—Rehearsal (ed. Arber); Campbell—Pleasures of Hope; Tennyson—Coming of Arthur, Gareth and Lynette, Holy Grail, Passing of Arthur; Gibbon—Decline and Fall, and chaps. L., LI., LXIV., LXV.; Guizot—History of Civilization in Europe; Macaulay—Vol. I., chap. 3; Freeman—Growth of the English Constitution.

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4. MATHEMATICS AND PHYSICS.

First and Second Years.—Mathematics.—Hall and Stevens' Euclid; McDowell's Exercises in Modern Geometry; Hall and Knight's Advanced Algebra; Todhunter's or Burnside and Panton's Theory of Equations (selected course); Lock's Higher Trigonometry, with McClelland and Preston's Spherical Trigonometry, Part I.; Salmon's Conic Sections, chapters 1, 2, 3, 5, 6, 7, and 10 to 13 inclusive; Williamson's Differential and Integral Calculus (selected course).

Third Year.—Mathematical Physics.—Part I.—Minchin's Statics, Vol. I., selected chapters. Williamson and Tarleton's Dynamics, Chaps. 1 to 8 inclusive. Part II.—Remainder of Minchin's Statics, Vol. I, Besant's Hydro-mechanics, Part I., chaps. 1, 2, 3, 7; Godfray's Astronomy; Parkinson's Optics.

B.A. HONOUR COURSE.

Part I.—Mathematical Physics.—Honour Course of the Third Year (the whole) Pure Mathematics.—Williamson's Differential and Integral Calculus; Salmon's Geometry of Three Dimensions (selected course).

Part II.—Pure Mathematics.—Boole's or Forsyth's Differential Equations (selected course). Mechanics.—Minchin's Statics, Vol. II, except chapters 14 and 18. Williamson's and Tarleton's Dynamics (the whole, including the Dynamics both of Rigid Bodies and of a particle). Routh's Dynamics of a Rigid Body (for reference). Besant's Hydro-mechanics.

Physical Astronomy.—Godfray's Lunar Theory, or Cheyne's Planetary Theory; Newton's Principia, Lib. I., Sects. 1, 2, 3, 9 and 11.

Light.—Preston's Theory of Light.

Electricity and Magnetism.—Ordinary Course, with Cumming's Theory of Electricity and Maxwell's Elementary Electricity, or Emtage's Electricity and Magnetism.

Heat
Acoustics } As in ordinary course.

COURSE FOR THE MOLSON MATHEMATICAL PRIZES.

Minchin's Statics, Vol. I. with part of Hydro-Mechanics, Parkinson's Optics: Preston's Theory of Light (selected course.)

Williamson's Differential and Integral Calculus. Salmon's Geometry of Three Dimension, (selected course.)

5. GEOLOGY AND NATURAL HISTORY.

THIRD YEAR.

Part I.—Mineralogy.—Crystallography. Physical properties of minerals dependent upon light, electricity, state of aggregation, etc. Chemical composition. Principles of classification. Description of species important as constituents of rocks. (One lecture weekly during the First Term, and two during the Second.)

Part II.—Blowpipe Analysis and Determinative Mineralogy.—One afternoon weekly in the Laboratory during the session. *Text-Book*:—Brush's Determinative Mineralogy and Blowpipe.

Instructions will be given to the class for study and collection in the vacation.

B. A. HONOUR COURSE.

Part I.—(1) *Mineralogy.*—Description of mineral species, particular attention being called to the Economic Minerals of Canada, Calculations of Mineralogical Formulæ, Quantivalent Ratios, etc. (Two lectures weekly in the First Term.)

(2) *Palæontology.*—Being an extension of that in the Third Year, with special studies of the more important groups of Fossils. One lecture and one demonstration weekly in the First Term.

Part II.—(3) *Petrography.*—Essential and accessory constituents of Rock. Macroscopic and microscopic characters. Preparation of Rock-sections. Microscopic examination of Minerals and Rocks. Principles of classification. Description and determination of Rocks. (One lecture weekly in the Second Term, with additional practical work or demonstrations.)

(4) *Canadian Geology.*—Special studies of the Geology of the Dominion of Canada. (One lecture weekly in the Second Term.)

(5) *Practical and Applied Geology.*—Including methods of observing and recording geological facts, and searching for mineral deposits.—Origin and mode of occurrence of ore deposits (One lecture weekly in the Second Term), with additional practical work or demonstrations.

During the second term, fours hours a week will be devoted to practical work and demonstrations, which will include each week a colloquium on some Geological question.

TEXT-BOOKS.—Dana, Geikie, Dawson, Kemp, Nicholson, Survey Reports, etc.

Candidates for Honours will be expected to attain such proficiency as to be able to undertake original investigations in some at least of the subjects of study.

Students in the Faculty of Applied Science may be Candidates for Honours.

ADDITIONAL DEPARTMENT.

Third Year.—Mineralogy as in Part I. above.

Fourth Year.—Palæontology and Practical Geology as in Parts I. and II. above. Or the student may take the Lectures in Mineralogy instead of Palæontology, or those in Petrography or Canadian Geology instead of Practical Geology.

6. MODERN LANGUAGES.

(French and German, both of which must be taken.)

THIRD YEAR.

Part I.—FRENCH.—La Fontaine :—Les Fables. Racine :—Les Plaideurs. Paul Albert :—Littérature de XVIIe siècle. Translation into French—Goldsmith :—The Vicar of Wakefield. Corneille :—Horace.

GERMAN.—Heine—Die Harzreise ; Schiller—Wilhelm Tell ; Macmillan's German Composition. (Either of the above may be taken as the Additional Course in the language to which it belongs. See § III.)

The Ordinary Course in French and German must also be taken. See § III

Part II.—FRENCH.—Racine :—Phèdre, Les Plaideurs. Boileau :—L'Art Poétique Pascal :—Les Pensées. Clédat.—Grammaire Elémentaire de la vieille langue française.

GERMAN.—Lessing.—Nathan der Weise ; Schiller.—Maria Stuart. A special study of Goethe's Faust (Part I.) ; History of German Literature (Gostwick and Harrison).

FOURTH YEAR.

Part I.—FRENCH.—Clédat. Grammaire Elémentaire de la vieille langue française. Paul Albert :—La Littérature Française dès les origines à la fin du XVI. siècle. Emile Souvestre :—Un Philosophe sous les toits. Translation into French :—As You Like it.

GERMAN.—Lessing.—Laokoon ; Behaghel's Deutsche Sprache ; Wieland—Die Abderiten ; Macmillan's German Prose Composition.

(Either of the above may be taken as the Additional Course in the language to which it belongs.)

The Ordinary Courses in French and German must also be taken.

Part II.—FRENCH.—Molière :—Le Misanthrope. Victor Hugo :—Hermani. La-Rochefoucaud :—Les Maximes. Montaigne :—Les Essais (Extraits par Eug. Voizard). Clédat, Grammaire Elémentaire de la vieille langue française, Constans :—Chrestomathie des anciens textes français.

GERMAN.—Goethe.—Hermann und Dorothea ; Schiller—Die Jungfrau von Orleans, Don Carlos ; Selections from Heine's Lyrical Poems ; Zarncke—Das Nibelungenlied ; History of German Literature ; Original Compositions in German.

For First and Second Rank Honours, the successful Candidates must be capable of speaking and writing both languages.

7. SEMITIC LANGUAGES.

THIRD YEAR.

Part I.—Hebrew.—Genesis, Isaiah, 40-66. Ecclesiastes.—*Literature.* F. Lenormant: The beginning of History.

Part II.—Aramaic.—Daniel, Ezra; Selections from the Targums.

Literature.—Sayce: Lectures on the Origin and Growth of Religion.

FOURTH YEAR.

Part I.—Hebrew.—Malachi, Psalms, 1-72; Job, 26-42. *Literature.*—Renan. A General History of the Semitic Languages.

Part II.—Syriac.—Selections from the Peshito, and from the Chronicles of Bar Hebræus.—*Literature.*—W. Wright: Comparative Grammar of the Semitic Languages.

ADDITIONAL COURSE.

Part II. of each year (Literature excepted), along with the Honour Lectures.

LECTURES IN THE UNDERGRADUATE COURSE IN THE FACULTY OF ARTS.

SESSION OF 1894–95.

	Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
First Year.	9	Latin.	† Mathematics.	Mathematics.	† Mathematics.	Mathematics.
	10	Mathematics.	Greek.	Latin.	Latin.	Greek.
	11	English.	* French. * German.	* French. *German.	* French. * German.	English.
	12	Elementary Chemistry.	* Hebrew.	English.	* Hebrew.	Elementary Chemistry.
Second Year.	9	* French.	Logic.	* French.	* Hebrew.	French.
	10	Greek.	* Hebrew. German (*c*)	Logic.	Logic.	German. † Mathematics.
	11	Mathematics.	Latin.	Botany.	Latin.	Greek.
	12	† Mathematics. Botany.	Math. Phy.	† Mathematics.		English.
				English (*b*). Latin (*a*.)		
Third Year.	9	English Literature.	Greek.	† Greek. † Math. Phys.	Greek.	[logy. † Greek. † English. † Mineral-
	10	† Geology. (*b*)	French. † Ment. Phil.	† Anglo-Saxon.	French. Chemistry.	German. Math. Phys.
		German. †Math. Physics.	† Latin.	Physics (Mathematical).	Hebrew.	Rhetoric.
		† Mental Philosophy.	Zoology.		Zoology.	* Syriac, etc.
	11	Mental Philosophy.		Mental Philosophy.		Math. Physics.
		† Latin † Math.	Experimental Physics.		Experimental Physics.	
	12		Hebrew.	Latin.	Hebrew.	Latin.
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Fourth Year.	9	Exp. Physics.	[(*a*)	† Greek. Geology. †Math.	Exp. Physics.	† Greek. † Math. Phys.
	10	Geology.	A tronomy. (*a*) † Mineralogy.	† Astronomy.	† Mental Philosophy.	Geology.
			French. † Ment. Phil.		German. History.	
	11	Latin. † Geology. † Math.		Greek.	Moral Philosophy.	French. † Geology. Anglo-
			Moral Phil. † Math. Phys.		† Chaldee.	Saxon and Early English.
	12	Moral Phil.	† Chaldee.	† Mineralogy (*a*). Hebrew.	Astronomy. (*a*)	German.
	1				Hebrew.	

(*a*) During First Term. (*b*) Second Term. (*c*) For beginners entering 2nd Year. † For Candidates for Honours.
* The student may take at his option French or German in the first two years, or, if a Theological Student, Hebrew.
Classes at 1 p.m. may be changed to other hours.
Library open every day, 9 to 6 and 8 p.m. to 10 p.m. The Museum will be opened as arranged by the Principal.
Determinative Mineralogy, Wednesday, at 2 p.m Practical Chemistry, Monday and Thursday, at 2 p.m., for 3d and 4th Years; First Year with the Class in Applied Science.

Special Course for Women.

IN THE FACULTY OF ARTS.

Donalda Endowment.

Professors and Lecturers (as on page 1). Lady Superintendent, Miss Helen Gairdner.

The classes for women under this endowment are wholly separate, except those for Candidates for Honours (including most of the additional courses in the Third and Fourth Years). The examinations are identical with those for men. Women will have the same privileges with reference to Classing, Honours, Prizes and Medals as men.

Regulations for Examinations, Exemptions, Boarding-Houses, Attendance, Conduct, Library and Museum are the same as for men. Undergraduates wear the Academic Dress; others do not.

In September, 1894, a Scholarship, value $125 yearly (tenable for two years), will be offered for competition in Mathematics to Students of the Third Year. The course is the same as for the Mathematical Scholarship open to men.

The *Jane Redpath Exhibition* is open for competition, at the beginning of the First or Second Year, to both men and women.

Two other Exhibitions (one of the value of $100, along with free tuition, the other $120 without free tuition) are open for competition in the First or Second Year to Students of the Donalda Department only. For course see § II. *ante*. Candidates for these Exhibitions are allowed, according to the general rule of the Donalda Department, to substitute an additional modern language for Greek in the examination. In this case, while the regulation concerning one modern language will for Entrance only be as in §II. *ante*, the course in that which is to be substituted for Greek in the Exhibition Examination will be :—

For First Year:—

French—Grammar—Darcy's Principes de Grammaire française.—La Fontaine's Fables. Molière—Le Bourgeois Gentilhomme. Sardou—Mlle de la Seiglière. Translation from English into French.

or *German*:—Grammar; Adler's Reader—First and Second sections; Schiller—Der Gang nach dem Eisenhammer, Das Lied von der Glocke; Stifter's, Haidedorf; Translation from English into German.

For Second Year:—

French:—Eugène Voizard, Essais de Montaigne. Lamartine, Jeanne d'Arc, CORNEILLE, Cinna.

or *German*:

Schiller—Der Neffe als Onkel, Egmont's Leben und Tod, Die Kraniche des Ibykus (Buchheim); Grammar; Translation of French and English into German.

N.B.—For examination in 1895 add Schiller's Geisterseher.

One free tuition may be awarded to a Candidate who approaches very near to the winner of either of the Exhibitions.

The income of the *Hannah Willard Lyman Memorial Fund* will be given in prizes.

I. MATRICULATION AND ADMISSION.

Classics.—I. *Latin.*—Caesar, Bell. Gall., Book I.; and Virgil, Aeneid, Book I; Latin Grammar. [In 1895, and afterwards, two books of Caesar will be required.]

Greek.—Xenophon, Anabasis, Book I.; Greek Grammar.

Candidates who cannot pass in Greek may substitute an additional modern language, subject to the same regulations throughout the course of four years. In and after 1895, there will be an entrance examination in German for such candidates.

Mathematics.—Arithmetic, including a knowledge of the Metric System; Algebra to Quadratic Equations (inclusive) as in Colenso; Euclid, Books I., II., III.

English.—Writing from Dictation. A paper on English Grammar, *including Analysis.* A paper on the leading events of English History. Essay on a subject to be given at the time of the Examinations.

French.—Grammar up to the beginning of Syntax. An easy translation from French into English. Candidates taking Greek and unable to take French are not excluded, but will be required to study German after entrance. This regulation holds good only until 1895.

An equivalent amount of other books or other authors in Latin and Greek than those named may be accepted by the Examiners, on application made through the Professor of Classics.

(Associates in Arts, who, at their special Examination, have passed in Latin, Algebra and Geometry, are not required to present themselves for the Matriculation Examination in these subjects.)

PARTIAL STUDENTS.—Candidates unable to pass in all the above subjects may be admitted as Partial Students, in the separate classes: if prepared to enter in three of the subjects of the ordinary course of study, they may in the First Year make good their standing as Undergraduates at the Christmas or Sessional Examinations.

II. ORDINARY COURSE OF STUDY FOR THE DEGREE OF B.A.

In separate Classes.

First Year.—Classics; French or German; English Grammar and Literature; Pure Mathematics; Elementary Chemistry.

Second Year.—Classics; French or German; English Literature; Elementary Psychology and Logic; Pure Mathematics and Mathematical Physics; Botany.

Third Year.—Latin or Greek; Mathematical Physics (Mechanics and Hydrostatics); with any three subjects out of the two following divisions, at the option of the Student, provided two be selected from one division and one from the other:—

I. Literature, etc.—(*a*) Greek or Latin, according as Latin or Greek has been previously chosen. (*b*) French or German (whichever has been taken in the first two years). (*c*) English and Rhetoric. (*d*) Mental Philosophy.

II. Science.—(*e*) Optics and Descriptive Astronomy. (*f*) † Experimental Physics. (*g*) Natural Science (Zoology).

Fourth Year.—Latin or Greek, same Language as in Third Year: Mathematical Physics (as in Third Year), or Astronomy and Optics; Moral Philosophy, with any three subjects out of the two following divisions, at the option of the Student, provided two be selected out of the one division, and one out of the other.

I. Literature, etc.—(*a*) Greek or Latin, according as Latin or Greek ha been taken above. (*b*) French or German, same language as in Third Year. (*c*) History.

II. Science.—(*d*) Astronomy and Optics, if not chosen as above. (*e*) † Experimental Physics. (*f*) Natural Science (Geology).

† Undergraduates claiming exemptions (see § V.) cannot take Astronomy and Optics or Experimental Physics if they have not taken the Third Year Mathemacal Physics.

Instead of two distinct subjects in one of the above divisions, the student in either Third or Fourth Year may select one subject only, together with an addi-

tional course in the same, or any other of these subjects under the above rules in arrangements be made by the Faculty for it), provided she has been placed in the first class in the corresponding subject at the preceding Sessional Examination (viz., Intermediate or Third Year, according to standing).

The additional course is intended to be more than an equivalent, in the amount of work involved, for any of the other subjects in the Division.

Additional courses are provided at present in Botany and Practical Chemistry

Gymnastics.—A class will be conducted by Miss Barnjum, which will be optional and open to Partial Students.

Elocution.—Instruction in this subject will be given to those who desire it, by Mr. J. P. Stephen. Special fee for session, $3.

HONOUR COURSES AND ADDITIONAL COURSES.

(*In Mixed Classes.*)

Undergraduates desirous to take one of the Honour Courses in Classics, Mathematics, Mathematical Physics, Mental and Moral Philosophy, English Language and Literature, History, Geology and other Natural Sciences, Modern Languages, or such portions of the Honour Courses as constitute the "Additional Courses," may in the Third and Fourth Years obtain exemptions to the same extent as those given to men, but must take the same lectures with men.

Details will be found in Section XIII. of the Calendar.

III. DEGREES.

Students are admissible to the degrees of B.A., M.A., and LL.D., conferred in the usual way, on the usual conditions; and will be entitled to all the privileges of these degrees, except that of being elected as Fellows.

IV. FEES.

The fees are the same as for men (see Section XII., *ante*).

The fees are to be paid to the Registrar of the University, from whom tickets for the Library and copies of the Library Rules may be obtained.

Exemptions from fees may be allowed to the highest pupil of the Girls' High School of Montreal and of other Schools, on the same terms as to men.

One exemption from tuition fees is annually allowed to the pupil (boy or girl) of the Montreal High School holding an exemption from the Schools of the Protestant Commissioners, Montreal, who has taken the highest marks at the A. A. Examinations and is recommended by the Commissioners.

V. LODGINGS, &c.

Women not resident in Montreal, proposing to attend the classes, and desiring to have information as to suitable lodgings, are re-

quested to intimate their wishes in this respect to the Registrar of the University, at least two weeks before the opening of the session.

Students desiring information as to the above or other matters are referred to the Lady Superintendent, who will be found in her office in the rooms of the Donalda Department, every day during the session, except Saturday.

LECTURES OPEN TO PARTIAL STUDENTS, SESSION 1894-95.

CHEMISTRY:—*Dr. Harrington.* Tuesday and Thursday at 12.

BOTANY:—*Prof. Penhallow.* Monday at 11, Wednesday at 12.

ZOOLOGY:—*Dr. Deeks.* Tuesday and Thursday at 12.

GEOLOGY:—*Dr. Adams.* Monday and Friday at 12, and Wednesday at 10 a.m.

EXPERIMENTAL PHYSICS:—*Professor Cox and Prof. Callendar.* Tuesday and Thursday, at 11 a.m.

PSYCHOLOGY AND LOGIC:—*Rev. Dr. Murray and Mr. Lafleur.* Tuesday and Friday at 4 p.m., and Monday at 3 p.m.

MENTAL PHILOSOPHY:—*Rev. Dr. Murray and Mr. Lafleur.* Monday and Wednesday at 3 p.m.

MORAL PHILOSOPHY:—*Rev. Dr. Murray.* Tuesday and Wednesday at 12, and Friday at 11 a.m.

RHETORIC:—*Mr. Lafleur.* Tuesday at 11 a.m.

ENGLISH:—*Prof. Moyse.* Language and Literature, Tuesday at 3 p.m., Wednesday and Friday at 4 p.m. Poets of the 19th Century, Wednesday, 3 p.m. Shakspeare, every alternate Friday at 3 p.m. Chaucer, Monday at 10 a.m.

HISTORY:—*Prof. Moyse.* Thursday at 9 a.m.

LATIN AND GREEK*:—*Rev. Dr. Cornish and Dr. Eaton.*

FRENCH*:—*Dr. Darey.*

GERMAN*:—*Mr. Gregor.*

MATHEMATICS*:—*Dr. Johnson and Mr. Tory.*

MATHEMATICAL PHYSICS*:—*Professor Cox.*

Those Courses in which two lectures weekly are delivered will each amount to about 45 lectures, and the others in proportion.

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* The lectures on these subjects extend over all the Years of the Course, and the hours will depend on the standing of Students with respect to previous preparation as ascertained by examination.

FACULTY OF ARTS.

*Ordinary Lectures in the Donalda Special Course for Women.

Years	Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday
First Year.	10				†Mathematics.	
	11	German.	† Mathematics.		Greek.	Math.
	12		Chemistry.		Chemistry.	
	2	Mathematics	French.	Mathematics.	French.	Mathematics.
	3	Latin.	English.	Latin.	German.	Latin.
	4	Greek.		English.		English.
Second Year.	10	Mathematics.	† Math.		Greek.	Latin.
	11	Botany.	Math. Phys.	Latin.	† Mathematics.	
	12	Greek.	Latin.	Botany.		† Mathematics
	2					
	3	Logic.	French.	English.	French.	English.
	4	German.	Logic.		German.	Logic.
Third Year.	10	English.	Greek.		Greek.	French.
	11	French.	Rhetoric Exp. Physics.		Exp. Physics.	Latin.
	12	Latin.	Zoology.	Math. Physics.	Zoology.	Math.Physics
	3	Metaphysics.		Metaphysics.	German.	
	4	German.				
Fourth Year.	9	Astronomy (*a*)			History.	
	10	French	Exp. Physics.	Geology.	Exp. Physics.	French.
	11	German.	Latin.	Astronomy (*a*).	Greek.	
	12	Geology.	Moral Phil.	Moral Phil.	Moral Phil.	Geology.
	3					German.

The hours for Practical Chemistry and Additional Botany will be arranged at the beginning of the Session.

† For Candidates for Honours.

* For Honour Lectures in 3rd and 4th years see previous table

(*a*) During First Term.

(*b*) During Second Term.

Faculty of Applied Science.

THE PRINCIPAL (*ex-officio*).

PROFESSORS.

HARRINGTON,
BOVEY,
MCLEOD,
CHANDLER,
CARUS-WILSON,
COX,
NICOLSON,
CALLENDAR.

ASSOCIATE PROFESSOR.

BAMFORD.

ASSOCIATED PROFESSORS.

DAREY,
MOYSE,
PENHALLOW,
ADAMS.

LECTURERS.

CARLYLE,
EVANS,
LEA,
SMITH, C.B.

ASSOCIATED LECTURERS.

LAFLEUR,
COLBY,
GREGOR,
DEEKS.

Dean of the Faculty:—HENRY T. BOVEY, LL.D., M. Inst. C.E., F.R.S.C.

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§ I. GENERAL STATEMENT.

The Instruction in this Faculty is designed to afford a complete preliminary training of a practical as well as theoretical nature to such Students as are preparing to enter any of the various branches of the professions of Engineering and Surveying, or are destined to be engaged in Assaying, Practical Chemistry, and the higher forms of Manufacturing Art.

Five distinct Departments of study are established, viz. :—

(1)—Civil Engineering and Surveying. (2)—Electrical Engineering. (3)—Mechanical Engineering. (4)—Mining Engineering. (5)—Practical Chemistry.

Each of these extends over four years, and is specially adapted to the prospective pursuits of the Student. The subjects of instruction in the several Departments are given in the Table on the following page.

The Degrees conferred by the University upon such undergraduates of this Faculty as shall fulfil the conditions and pass the Examinations hereinafter stated will be, in the first instance, "Bachelor of Applied Science," mention being made in the Diploma of the particular Department of study pursued; and, subsequently, the degree of "Master of Engineering" or of "Master of Applied Science." (§ IV.)

II. TABLE SHOWING THE SUBJECTS OF INSTRUCTION AND HOURS PER WEEK DEVOTED TO EACH SUBJECT.

	SUBJECTS.	DESCRIPTION UNDER		CIVIL ENGINEERING.	ELECTRICAL ENGINEERING.	MECHANICAL ENGINEERING.	MINING ENGINEERING	PRACTICAL CHEMISTRY.
FIRST YEAR.	Chemistry	§ XI.,	8	5	5	5	5	5
	English	"	14	3	3	3	3	3
	French or German	"	15	3	3	3	3	3
	Mathematics	"	13	10	10	10	10	10
	Mechanism	"	1	1	1	1	1	1
	Freehand Drawing	"	4	3	3	3	3	3
	Geometrical Drawing	"	3	3 to 6	3 to 6	3 to 6	3 to 6	3 to 6
	Mathematical Laboratory	§ XII.	1	3 (b)	3 (b)	3 (b)	3 (b)	3 (b)
	Shopwork	§ XIV.		6	6	6	6	6
SECOND YEAR.	Botany	§ XI.,	11	—	—	—	—	2
	Chemistry	"	8	—	—	—	7	14
	English	"	14	1	1	1	1	1
	French or German	"	15	2	2	2	2	2
	Kinematics of Machinery	"	6	—	2	2	—	—
	Mathematics	"	13	6	6	6	6	—
	Physics	"	12	2	2	2	2	2
	Surveying	"	2	3	—	—	3	—
	Zoology*	"	10	3	—	—	3	—
	Drawing	"	3	8	8	6	6	—
	Physical Laboratory	§ XII.	3	6	6	6	3	5
	Shopwork	§ XIV.		3	6	6	3	—
THIRD YEAR.	Chemistry	§ XI.,	8	—	—	—	6	16
	Determinative Mineralogy	"	8	—	—	—	3	3
	Dynamics of Machinery	"	6	—	2	2	—	—
	Electrical Engineering	"	5	—	2 (b)	—	—	—
	Geology and Mineralogy * **	"	10	3	—	—	4 to 5	4 to 5
	German	"	15	—	—	—	—	—
	Mathematics	"	13	3	3	3	3	—
	Machine Design	"	6	2	2	—	2	—
	Mining	"	7	—	—	—	3	—
	Physics	"	12	2	2	2	2	2
	Surveying	"	2	3	—	—	3	—
	Theory of Structures	"	1	4	3	3	3	—
	Zoology*	"	10	—	—	—	—	3
	Drawing	"	3	9	6	6	3	—
	Electrical Laboratory	§ XII.	6	—	6 (b)	—	—	—
	Physical Laboratory	"	3	3	9 to 11	3	3	3
	Testing Laboratory	"	4	6	3 (a)	3	—	—
	Thermodynamic Laboratory	"	5	—	—	6	—	—
	Shopwork	§ XIV.		—	6	6	—	—
FOURTH YEAR.	Assaying	§ XI.	18	—	—	—	9	—
	Chemistry	"	8	—	—	—	—	24
	Dynamics of Machinery	"	6	—	1 to 2	1 to 2	—	—
	Electrical Engineering	"	5	—	2	—	—	—
	Geodesy	"	2	2	—	—	—	—
	Geology and Mineralogy * **	"	10	—	—	—	3	3
	Hydraulics	"	1	2	—	2	2	—
	Machine Design	"	6	—	1	1	—	—
	Mathematics	"	13	3 (a)	3 (a)	3 (a)	2 (a)	—
	Metallurgy	"	7	—	—	—	2	2
	Theory of Structures	"	1	4	—	—	—	—
	Thermodynamics	"	9	2	2	2	2	—
	Drawing (Designing)	"	3	8	3	9	3	—
	Electrical Laboratory	§ XII.	6	—	12	—	—	—
	Geodetic Laboratory	"	7	3	—	—	—	—
	Hydraulic Laboratory	"	8	3	—	3	3	—
	Mechanical Laboratory	"	9	—	—	6	—	—
	Museum Work			—	—	—	6	—
	Physical Laboratory	"	3	Opt.	9	Opt.	Opt.	Opt.
	Testing Laboratory	"	4	3	—	—	3	—
	Thermodynamic Laboratory	"	5	3	—	7	—	—
	Shopwork	XIV.		3	4	4	—	—

(a) First term. (b) Second Term. * Besides study in the Museum.
** Also Saturday excursions, and Museum and Petrographical work.

§ III. MATRICULATION AND ADMISSION.

All Students are recommended to take the First and Second Years of the Arts Course. They are then admitted into the Faculty of Applied Science without examination.

Students and Graduates in Arts will be admitted to such standing in the Faculty of Applied Science as their previous studies will warrant, but are recommended to take the drawing and shop-work during their Arts Course.

Candidates for examination must present themselves on the first day of examinations, and all Students must attend punctually at 9 a.m. on Friday, September 21st, when the lectures will begin.

Examinations for entrance will be held (1) on June 4th and following days in McGill College and at local centres, and (2) on Tuesday, September 18th, and following days in McGill College only.

Any Head Master or other person desiring a local examination in June must, before May 10th, submit the name of some suitable person, preferably a University graduate, who is willing to act as Deputy Examiner, *i.e.*, receive the questions, hold the examinations, and forward the answers to Montreal. Further particulars relating to this examination will be given on application to the Secretary of the University.

SUBJECTS OF EXAMINATION.

MATHEMATICS—*Arithmetic*—All the ordinary rules, including square root and a knowledge of the Metric System

Algebra—Elementary rules, involution, evolution, fractions, indices, surds, simple and quadratic equations of one or more unknown quantities.

Geometry—Euclid, Bks. I., II., III., IV. and VI., with definitions of Bk. V., and easy deductions.

Trigonometry—As in Hamblin Smith, pp. 1-100, omitting Ch. XI.

ENGLISH—*Dictation*. *Grammar* including analysis. The leading events of English History.

After entrance, one modern language, viz., FRENCH OR GERMAN, must be studied. In the former subject an entrance examination (to the beginning of Syntax, with easy translation) will be held at

the same time as the other examinations. The German may be taken without previous examination.

Candidates who produce certificates of having already completed a portion of a course in some recognized School of Applied Science may be admitted to an equivalent standing.

Partial Students.—Students may be allowed to take one or more courses of instruction, upon showing by examination or otherwise that they are qualified to do so.

§ IV. EXAMINATIONS.

I. FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

1. Faculty Examinations.

There will be a Christmas examination for Students of the First Year in all the subjects, and for Students of the Second, Third and Fourth Years in Mathematics, and in those subjects which they take in the Faculty of Arts. A sessional examination in all the subjects will be held at the end of the First and Second Years.

2. University Examinations.

(*a*) There will be a primary examination at the end of the Third Year in all the subjects of that year. Candidates must pass this Examination before entering the Final Year.

(*b*) There will be a final examination for the degree of Bachelor of Applied Science at the end of the Fourth Year, in all the subjects of that year.

Successful Students will be arranged in order of merit.

II. FOR THE DEGREE OF MASTER OF ENGINEERING.

Candidates must be Bachelors of Applied Science of at least three years standing, and must produce satisfactory certificates of having been engaged during that time upon *bona fide* work in either the Civil, Electrical, Mechanical, or Mining Branch of Engineering.

They must pass with credit an examination extending over the general theory and practice of Engineering, in which papers will be set having special reference to that particular branch upon which they have been engaged during the three preceding years.

Candidates must present applications for examinations, together with the necessary certificates and fees. The Faculty will notify the candidates whether their certificates are satisfactory, and also of the date of the examination. (See also § V.)

III. FOR THE DEGREE OF MASTER OF APPLIED SCIENCE.

Candidates must be Bachelors of Applied Science of at least three years standing, must present certificates of having been employed during that time in some branch of scientific work, and must pass with credit an examination on the theory and practice of those branches of scientific work in which they may have been engaged. The other conditions as under the last heading. (See also § V.)

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§ V. GRADUATE COURSES.

Students who take the Bachelor's degree in one of the courses provided by the Faculty of Applied Science may graduate in any of the remaining courses by attending one or more subsequent sessions.

Graduates may also take an advanced course in the branch in which they have received their degree. On passing an examination at the end of such advanced course, the Master's degree will be conferred without further examination as soon as satisfactory certificates of having been employed for two years in practical work have been received.

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§ VI. ATTENDANCE AND CONDUCT.

The regulations under this head are in all respects the same as those in force for Undergraduates in Arts.

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§ VII. LIBRARY AND MUSEUM.

Students in this Faculty have the same privileges with reference to the University Library and Museum as Undergraduates in Arts

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§ VIII. FEES.

The total fees for all Students will be $102.00 per annum, of which amount the sum of $63.00 is for tuition, $14.00 are University fees

(matriculation, library, graduation, etc.), and $25.00 are for the use of the machinery and other apparatus, as well as the cost of material in the workshops and engineering laboratories.

Every Student will be required to deposit with the Secretary of the University the sum of $5.00, as caution money for damage done to the machinery or other apparatus.

Partial Students may be admitted to the Professional Classes in any year by payment of the ordinary fees for that year; or they may attend the lectures on any subject by payment of a special fee. The fee for English or French or German is $4.00 per session. In all other subjects, the fee, unless otherwise specified, is $10.00 for each term, or $20.00 for the whole session.

Special Workshop Fees.—Partial Students desirous of taking the workshop courses will be required to pay the following fees, which include cost of materials and use of all tools :

1 day, or 7 hours per week for the whole Session from				September to April :	$25 00
2 days, or 14	"	"	"	"	45 00
3 days, or 21	"	"	"	"	60 00
4 days, or 28	"	"	"	"	70 00
Supplemental Examination, at date fixed by Faculty					$2 00
" " if for any special reason granted at any other date than that fixed by the Faculty					$5 00

The fees must be paid to the Secretary, and the tickets shown to the Dean, within fourteen days after the commencement of attendance in each Session. In case of default, the Student's name will be removed from the College books, and can be replaced thereon only by permission of the Faculty, and on payment of a fine of $2.

Students are required to purchase their own chemicals, etc., except in the First Year. The larger pieces of chemical apparatus will be supplied by the Laboratory, the Students being responsible for breakage.

Graduates in the Faculty of Applied Science may take further courses on payment of half the ordinary tuition fees.

Fee for the Degree of Master of Engineering or Master of Applied Science, $10.00.

If for any special reason the Degree of Ma.E., or M.A.Sc., be granted *in absentiâ*, the fee will be $25.00.

IX MEDALS, EXHIBITIONS, PRIZES AND HONOURS.

1. The British Association Gold Medal and Exhibition, founded by the British Association for the Advancement of Science, in commemoration of the meeting held in Montreal in the year 1884.

The British Association Gold Medal for the Session 1894-95 will be awarded to the Student in the Fourth Year who takes the highest standing in the Electrical Engineering Course.

2. The Governor General's Silver Medal (the gift of his Excellency The Right Honourable the Earl of Aberdeen).

The Medal for the Session 1894-95 will be awarded in the Fourth Year Mining Course.

The following Exhibitions and Prizes will be open for competition at the beginning of the session. *Students are required to notify the Dean of their intention to compete, at least one week before the commencement of the examinations.*

3. A British Association Exhibition of $50.00 to Students entering the Fourth Year, the subjects of examination being the Mathematics and Theory of Structures of the Ordinary Course.

4. A Scott Exhibition of $60.00, founded by the Caledonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, to Students entering the Third Year, the subjects of Examination being:—

(*a*) Macaulay's History of England, Vol. I, Cap. I; Scott's Lady of the Lake. (*b*) Mathematics of the Second Year Course. (*c*) French or German of the Second Year Course.

5. Three Prizes of $25.00 and $15.00, and $10.00, will be open for competition to Students entering the Second Year, the subjects of Examination being the Mathematics of the First Year course.

6. Two prizes of $25.00 each, presented by E. B. Greenshields, B.A., and P. A. Peterson, M. Inst. C.E., be will given for the best Summer Essays on engineering subjects.

N.B. Undergraduates are strongly advised to prepare, during the Summer months, a thesis or report on some subject connected with the special course they are pursuing at the University. All prize theses must be placed in the hands of the Dean on or before the 1st of October.

7. The Mason prize of $50.00 in Electrical Engineering, given by Dr. A. F. Mason for original investigation in the practical application of Electricity.

8. Two Prizes, each of $10.00, from the British Association Medal Fund, to Students entering the Third Year, for proficiency in Levelling or Transit Work.

9. Prizes or certificates of merit are given to such Students as take the highest place in the Sessional and Degree Examinations.

10. HONOURS.—On graduation, Honours will be awarded for advanced work in Professional subjects.

11. By the will of the late Dr. T. Sterry Hunt, F.R.S., an endowment has been provided for Scholarships in Practical Chemistry, which it is hoped will be available before the close of next session.

12. SCIENCE SCHOLARSHIPS GRANTED BY HER MAJESTY'S COMMISSION FOR THE EXHIBITION OF 1851.—These Scholarships of £150 sterling a year in value are tenable for two or, in rare instances, three years. They are limited, according to the Report of the Commission, "to those branches of Science (such as Physics, Mechanics and Chemistry) the extension of which is specially important for our national industries." Their object is, not to facilitate ordinary collegiate studies, but "to enable Students to continue the prosecution of Science with the view of aiding in its advance or in its application to the industries of the country."

A nomination to one of these scholarships for the year 1893 was placed by the Commission at the disposal of McGill University, and another may be granted in 1895.

It is open to Students of not less than three years' standing in the Faculties of Arts or Applied Science, and is tenable at any University or at any other Institution approved by the Commission.

13. WORKSHOP PRIZES.—(*a*) A Prize of $20.00, presented by C. J. Fleet, B.A., B.C.L., for bench and lathe work in the wood-working department, open to Students of not more than two terms standing in workshop practice. (*b*) Other prizes to be announced during the session.

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§ X. SPECIAL PROVISIONS.

1. Partial Students may be admitted to the professional classes upon payment of special fees (§ VIII).

2. Students in Applied Science may, by permission of the Faculty, take the Honour Classes in the Faculty of Arts.

3. Undergraduates in Arts of the Second and Third Years, or Graduates of any University, entering the Faculty of Applied Science, may, at the discretion of the Professors, be exempted from such lectures in that Faculty as they have previously attended as Students in Arts.

4. Students who have failed in a subject in the Christmas or Sessional Examinations may regain their standing by passing a supplemental examination at a time appointed by the Faculty. Unless such supplemental examination is passed, Students will not be allowed to proceed to any subsequent examination in the subject. A second supplemental examination will not be granted.

5. Students may be required to answer satisfactorily a weekly paper on such subjects of the course as shall be determined by the Faculty.

6. Students who fail to obtain their Session, and who in consequence repeat a Year, will not be exempted from examination in any of those subjects in which they may have previously passed, except by the express permission of the Faculty. Application for such exemption must be made at the commencement of the Session.

7. A Student may obtain a certificate of standing on payment of a fee of $2.00.

8. Certificates may be given to Students who have passed through any of the special courses attached to the curriculum.

9. The headquarters of the Canadian Society of Civil Engineers are at present in Montreal. The Society holds fortnightly meetings, at which papers upon practical current engineering subjects are read and discussed. Undergraduates joining the Society as Students may take part in these meetings and acquire knowledge of the utmost importance in relation to the practical part of the profession.

10. Caps and gowns, also the overalls for the workshops, may be obtained from the janitor of the Engineering Building.

§ XI. COURSES OF LECTURES.

1. CIVIL ENGINEERING AND APPLIED MECHANICS.

Professor :—HENRY T. BOVEY, M.A., D.C.L., M.INST.C.E., F.R.S.C. (Scott Professor of Civil Engineering and Applied Mechanics).
Associate Professor of Hydraulics :—H. BAMFORD, M.Sc.

Lecturers :— { C.B. SMITH, MA.E. / R. S. LEA, MA.E.

THEORY OF STRUCTURES. (For Laboratory Work, see § XII.)

The lectures on this subject embrace :—

(*a*) The analytical and graphical determination of the stresses in the several members of framed structures, both simple and complex, as, *e.g.*, cranes, roof and bridge trusses, piers, etc.

(*b*) The methods of ascertaining and representing the shearing forces and bending moments to which the members of a structure are subjected.

(*c*) A study of the strength, stiffness and resistance of materials, including a statement of the principles relating to work, inertia, energy and entropy, together with a discussion of the nature and effect of the different kinds of stress and the resistance offered by a material to deformation and to blows.

(*d*) The design and proper proportioning of beams, pillars, shafts, roofs, bridge piers and trusses, arches, masonry dams, foundations, earth works and retaining walls.

TEXT-BOOK.—Bovey's Theory of Structures and Strength of Materials.

RAILROAD ENGINEERING.

During the Session 1894-95 it is expected that Mr. C. B. Smith, Ma.E., will deliver a series of lectures on Railroad Engineering embracing :—

(*a*) Traffic, gradients, curvature, train resistance, etc., leading up to :—

(*b*) Determination of structures required in construction.

(*c*) Laying out of work ; calculation of quantities of material used in construction ; specifications for same.

(*d*) Track-laying, ties (wooden and metal), ballast, steel rails and fastenings, semaphores, switches, yards, turnouts, frogs, etc., methods of signalling, telegraphic, staff, block, permissive block, etc.

(*e*) Operation and equipment, with special reference to couplers and brakes ; maintenance of way, renewals, surfacing, etc.

(*f*) Résumé of Railroad law, having special reference to the duties of an Engineer.

HYDRAULICS. (For Laboratory Work, see § XII.)

The lectures deal with this subject both theoretically and with reference to its practical applications.

The Student is instructed in the fundamental laws governing the equilibrium

of fluids, and in the laws of flow through orifices, mouth-pieces, submerged (partially or wholly) openings, over weirs, through pipes in open channels and rivers. The impulsive action of a free jet of water upon vanes, both straight and curved, is carefully discussed, and is followed by an investigation of the power and efficiency of the several hydraulic motors, as, *e.g.*, Reaction Wheels, Pressure Engines, Vertical Water Wheels, Turbines, Pumps, etc.

Practical Hydraulics.

During the Session 1894-95 Mr. R. S. Lea, Ma.E., will deliver a series of practical lectures on Hydraulics, embracing quantity and quality of waters ; systems and sources of supply : rainfall and evaporation ; storage as related to the supplying capacity of water-sheds ; natural and artificial purification ; distribution including the location of mains, hydrants, stop-valves, etc., for combined or separate fire and domestic systems ; details of construction, including dams, reservoirs, pumps, etc., preliminary surveys, estimates of cost, statistics, etc.

2. SURVEYING AND GEODESY.

Professor :—C. H. McLeod, Ma.E.
Assistant :—J. G. G. Kerry, Ma.E.

This course is designed to qualify the Student for admission to the practice of Provincial and Dominion Land Surveying It also affords a practical and theoretical training in Field Engineering, Practical Astronomy, and in the simpler operations of Geodetic Engineering. The instruction is given by lectures and by practice in the field, drawing room, laboratory and observatory. The course of lectures is as follows :—

Second Year.—Chain and angular surveying. The construction, adjustment and use of the various instruments. Contour surveying. Underground surveying. Topography. Ranging curves. Levelling and setting out work.

Third Year.—Railway locations. Geodetic levelling. Indirect and Barometric levelling. Hydrographic surveying. Introduction to Practical Astronomy.

Fourth Year.—Geodesy. Practical Astronomy.

Each Student in this course is required to take part in the following :—

1. A chain survey. 2. A contour survey based on 1. 3. Compass surveys with and without local attraction. 4. A plane-table survey. 5. The preliminary surveys and location of a line of road, the work being afterwards set out for construction. 6. The hydrographic survey of a channel in the St. Lawrence River. 7. A triangulation survey from one base, checking on a second base. 8. The precise measurement of two base lines. 9. Differences of level by spirit level, triangulation and barometer. 10. Determinations of latitude by the zenith telescope and prime vertical methods. 11. Determination of the meridian. 12. Determinations of time by a portable astronomical transit, by sextant, and by the solar attachment. 13. Determination of longitude by the telegraphic metho d and by moon culminations. 14. Exercises on the comparison of clocks and chronometers. 15. Practice in the use of field magnetic instruments.

Students engaged in these surveys are expected to keep complete notes, and

from them to prepare all plans and sections required. The necessary instruction in topography and mapping is given in the drawing room.

The large drawing rooms are fitted up with suitable mountings for the various instruments, in order to permit of their use and investigation during the winter months. The equipment of surveying and geodetic instruments includes :—

Six transits and transit theodolites. Seven levels. Four sextants. Two plane tables. Three surveyor's and three prismatic compasses. Three current-meters. A 300 foot steel tape arranged for basework. An Altazimuth. A Precision Level. A Zenith Telescope. Astronomical Transits. Break-circuit Chronometer. Chronographs. Heliotropes. Hand levels, chains, rods, tapes barometers, pedometers, and other minor instruments.

The instruction in the Observatory and Geodetic Laboratory (see § XII.) will be given in the Fourth Year.

Examinations for Land Surveyors :—Any graduate in the Faculty of Applied Science in the Department of Civil Engineering and Land Surveying may have his term of apprenticeship shortened to one year for the profession of Land Surveyor in Quebec or Ontario, or for the profession of Dominion Land Surveyor. He must, however, pass the preliminary and final examinations before one of the Boards of Examiners. The former examination should be passed before entering the University, or in the First or Second Year of attendance.

Special provisions will be made for Students who desire to pass the Examination for Dominion Topographical Surveyor.

Text-Books :—Gillespie's Surveying, Johnson's Theory and Practice of Surveying, Shortland's Nautical Surveying, Green's Practical and Spherical Astronomy, Nautical Almanac.

3. DESCRIPTIVE GEOMETRY.

Lecturers :— { C. H. McLeod, Ma.E. / C. B. Smith, Ma.E. / J. G. G. Kerry, Ma.E.

First Year.—Geometrical drawing, orthographic projections, including penetrations, developments, sections, etc. Isometric projection.

Second Year.—Problems on straight line and plane. Projections of plane and solid figures. Curved surfaces and tangent planes. Intersections of curved surfaces. Axometric projections. Shades and shadows. Mathematical perspective and the perspective of shades and shadows.

Third Year.—Graphical determination of spherical triangles. Spherical projections. Construction of maps.

Text Book :—Millar's Descriptive Geometry.

4. FREEHAND AND MODEL DRAWING.

Demonstrators :- { A. T. Taylor, F.R.I.B.A. / C. B. Smih, Ma.E.

This course is designed to give Students facility in observation and in sketching objects, both from the flat and from the round. Special instruction is given in sketching parts of machinery, structural work, etc.

5. ELECTRICAL ENGINEERING.

Professor :—C. A. CARUS-WILSON, M.A., M.Inst.E.E., A. M.Inst.C.E.

(McDonald Professor of Electrical Engineering).

The object of this course is to introduce the Student to the principles underlying the practice of Electrical Engineering. Very little time is devoted to the consideration of strictly technical details, which the Student can far better study in the factory, where he is strongly recommended to go after his college course. The methods and the instruments used are, in almost every case, those that the Student will have eventually to use in practice. The object of the lectures is not to go over ground already covered by the text-books, except in cases where the subjects are not clearly put, but rather to direct the reading of the Students and to discuss problems arising out of the laboratory work.

The work in the Electrical Engineering laboratories is not commenced until the second term of the Third Year. By that time the Students will have gained a fair general acquaintance with Electricity in the Physical laboratory. They will then begin a series of experiments on Electricity and Magnetism on a practical scale, using methods and instruments in ordinary practical use, still however, confining their attention to the principles and not to their application. Thus the principle of the magnetic circuit will be studied in many different ways, but with apparatus put together for each special experiment. This term's work is preparatory to that of the Fourth Year, when the Students will, in the Dynamo Room, study the practical application of these principles.

Here they will make experiments on electrical machinery of all kinds; series, shunt, and compound dynamos; motors, motor-generators, alternators, etc. They will be able to carry out tests of dynamos, transformers and motors under practical working conditions, not only on the apparatus in the dynamo room but also throughout the building, where there are several motors, driving lathes, fans, etc., besides an electric elevator and an electric drill. In addition to these advantages they will have the opportunity of seeing a typical lighting station of twelve hundred lights at work, and may become familiar with the best practice and design on engines, dynamos, switchboard, wiring, etc.

6. MECHANICAL ENGINEERING.

Professor :—J. T. NICOLSON, B.Sc., M.Can.Soc. C.E., M.Am.Soc.M.E.

(Workman Professor of Mechanical Engineering).

Assistant :—G. SINCLAIR SMITH, B.A.Sc.

This course embraces four subjects of study, as follows :—

I. DESCRIPTIVE MECHANISM, AND KINEMATICS OF MACHINERY.

A course of lectures, illustrated by the lantern, will be given in the First Year, introducing the subject of mechanism in general to the Student. Beginning with elementary contrivances and common forms, the functions and principles of all

kinds of ordinary mechanisms are explained; and the course concludes with detailed descriptions of prime movers, machine tools, locomotives, and a few lectures on the principles of the action of cutting tools.

In the Second Year the Science of Kinematics applied to machinery is taken up. Reuleaux's principles and classifications are followed, and illustrated by the fine and unique collection of models in the Museum. The synopsis of the course includes the following subjects: Definition of a machine. Lower Pairs. Kinematic chains and trains. Centrodes. Restraint. Higher Pairs. Force and chain closure. Dead points. Notation Analysis of the quadric crank chain, the slider-crank chain, the double-slider crank chain. Chamber crank and wheel trains. Kinematic synthesis.

II. Dynamics of Machinery.

While motion without regard to force was considered in the kinematic course, the action of external forces so as to compel rest or prevent change of motion, or so as to produce or to change motion in the links of mechanisms, is now considered in a series of lectures extending over two years.

The Third Year course embraces the following:

Friction. Laws based on recent experiments, applied to journals and pivots. Railway brakes. Resistance to rolling. Friction in mechanisms treated graphically. Dynamics of belt and rope drives. Friction clutches. Elementary parts of dynamics of the steam engine, curves of crank effort for single and multiple cranks. Fluctuation of energy and of speed. Fly-wheels. Indicators. Absorption and transmission dynamometers.

Fourth Year:—Balancing of double and single acting engines and of the locomotive. Rigid dynamics applied to the connecting rod, the oscillating engine, the governor, and gyrostatic action in machinery. The inter-relation between fly-wheel and governor. Dynamics of machine tools, of pumping and of forging machines. Graphic treatment of the dynamics of complicated machines.

III. Machine Design.

In the above courses the parts of the machines considered have been supposed perfectly rigid; their real state in this respect is considered in two courses of lectures extending over the Third and Fourth Years. The nature of the instruction is sufficiently indicated in the Text-book, which is Unwin's Machine Design, 2 vols.

IV. Mechanical Drawing.

This course extends over three years:—

Second Year:—Elementary priniciples of mechanical drawing. Simple machine details. Sketching of machinery. Dimensioning. Tracing and conventional colouring.

Third Year:—Making of working drawings. Simple designing. Engine designing.

Fourth Year:—Practical machine design. The complete design of a machine, such as a steam engine, a pump, a crane, a turbine, or a machine tool.

7. MINING AND METALLURGY.

Lecturer :—W. A. Carlyle, M.A.E.

The lectures on Mining are given during the Third Year, and among the subjects taken up the following may be mentioned :—Blasting and the nature and use of different Explosives, Quarrying, Hydraulic Mining, Boring; the Sinking, Timbering and Tubbing of Shafts; Driving and Timbering of Levels, Underground Conveyance and Hoisting, Drainage and Pumping, Lighting and Ventilation of Mines, special methods of Exploitation employed in the working of Metalliferous Deposits or of Coal Seams, etc.

Ore-dressing and Underground Surveying will also receive special attention. As yet there is no special mining laboratory in which practical operations in ore-dressing, etc., can be carried on, but it is hoped that this deficiency will be supplied in the near future.

In the Fourth Year a course of lectures on Metallurgy is given. The general properties of the metals and the nature of fuels, fire-clays, etc., are first discussed and afterwards the more important metals and the methods of obtaining them from their ores by wet or dry process taken up in detail.

Students of the Fourth Year also devote considerable attention to the designing of mining machinery, furnaces, etc.

8. CHEMISTRY AND ASSAYING.

Professor :—B. J. Harrington, B.A., Ph.D. (Greenshields Professor of Chemistry and Mineralogy).

Sessional Lecturer :—Nevil Norton Evans, M.A.Sc.

Assistant :—

This course includes lectures and laboratory work. In the First Year, Students of all the Departments attend a course of lectures on the laws of Chemical Combination, Chemical Formulæ and Equations, the preparation and properties of the more important Elements and their Compounds, etc. They also devote one afternoon a week throughout the session to practical work in the Laboratory, where they learn the construction and use of ordinary apparatus, perform a series of experiments designed to cultivate the powers of observation and deduction, and begin Qualitative Analysis.

In the Second and Third Years, Students in the Department of Practical Chemistry attend lectures on the Chemistry of the metals or on Organic Chemistry, and receive instruction in Qualitative and Quantitative Analysis, including gravimetric and volumetric methods and the application of electrolytic methods to the estimation of copper, nickel, etc. Blowpipe Analysis and Determinative Mineralogy also constitute part of the work of the Third Year.

In the Fourth Year, special attention is devoted to such subjects as Mineral Analysis and Assaying, and the Analysis of Iron and Steel; but considerable latitude is allowed to Students in the choice of subjects, and organic work may, if desired, be taken up.

Students of the Mining Course take Qualitative and Quantitative Analysis during the Second and Third Years, and devote considerable attention in the Fourth Year to Mineral Analysis and Assaying of various ores, fuels, etc. They also attend the class in Blowpipe Analysis and Determinative Mineralogy in the Third Year.

The chemical laboratories (see § XII) are open daily (Saturdays excepted) from 9 a.m. to 5 p.m.

9. THERMODYNAMICS.

Lecturer :—J. T. Nicolson, B.Sc., M.Can.Soc.C.E.

Demonstrator :—G. S. Smith, B.A.Sc.

Fundamental laws and equations of thermodynamics. Application to perfect gases and to steam saturated and superheated. Efficiency of perfect heat engines. Efficiency of actual air, gas, petroleum, and steam engines.

A study of the steam engine, including wire-drawing, cylinder condensation and jacketing, and the most efficient and most economical point of cut-off. Sizes and proportions of cylinders in single, double and triple expansion engines to develop a given power. Expected indicator diagrams. Sizes and proportions of the principal types of steam generators. Comparison of practical suitability of steam and caloric engines. Theory of engine and boiler testing.

10. GEOLOGY AND MINERALOGY.

Professors :— { B. J. Harrington, B.A., Ph.D., F.G.S.
Frank D. Adams, M.A.Sc., Ph.D.

Second Year.—A preliminary Course in Zoology, with special reference to Fossil Animals.

Third Year.—Mineralogy (Ordinary and Honour), Petrography, Physical and Chronological Geology and Palæontology, Geology of Canada, Methods of Geological Exploration.

Fourth Year.—Special studies in Mineralogy and Petrography; Advanced Course in General Geology and Palæontology; Geology of Canada; Practical Geology and Field-work.

For further details see Announcement of the Faculty of Arts.

Note.—Students of the Mining and Chemistry courses take the Honour Mineralogy of the Third Year in Arts. Mining Students take the whole Honour course of the Fourth Year. Chemistry Students take, in addition to the ordinary course in Geology, the Honour Mineralogy of the Fourth Year.

11. BOTANY.

Professor :—D. P. Penhallow, B.Sc., F.R.S.C.

Course.—General Morphology and Classification. Descriptive Botany. Flora of Canada. Nutrition and reproduction of Plants. Elements of Histology.

12. ZOOLOGY.

Lecturer :—W. E. Deeks, B.A., M.D.

For course see Faculty of Arts p. 54.

13. EXPERIMENTAL PHYSICS.

Professors:—{ JOHN COX, M.A. (McDonald Professor of Physics).
{ HUGH L. CALLENDAR, M.A. (McDonald Professor of Physics).

The instruction includes a fully illustrated course of Experimental Lectures on the general principles of Physics (embracing, in the Second Year—*The Laws of Energy—Heat and Light*; in the Third Year—*Sound—Electricity and Magnetism*), accompanied by courses of practical work in the Laboratory in which the Students will perform for themselves experiments, chiefly quantitative, illustrating the subjects treated in the lectures. Opportunity will be given to acquire experience with all the principal instruments used in exact physical and practical measurements. Students of Electrical Engineering will continue their work in the Laboratory in the Fourth Year, when they will undertake, under the guidance of the Professors, advanced measurements and special investigations bearing on their technical studies.

14. MATHEMATICS AND MATHEMATICAL PHYSICS.

Professor:—G. H. CHANDLER, M.A.

Lecturer:—R. S. LEA, MA.E.

The work in this department is conducted from the outset with special reference to the needs of Students of Applied Science. Much time is given to practice in the use of Mathematical Tables, particular attention being paid to the solution of triangles, the tracing of curves, graphical representation of functions, reduction of observations, etc. Areas, volumes, masses, centres of gravity, moments of inertia, etc., are determined both by calculation and by observation or experiment, and each method is made to supplement or illustrate the other. In this connection, use will be made, in actual laboratory practice, of a large amount of apparatus, such as balances, Atwood's Machines, inclined planes, chronographs, rotation apparatus of various kinds, etc. The different methods of approximation, the reduction of results of experiments and observations by least squares, etc., will also receive due attention.

The lectures will embrace the following subjects:—

FIRST YEAR.—Euclid, to the end of Book VI., with exercises on Loci, Transversals, etc. Algebra, including the Binomial Theorem. Elements of Solid Geometry and of Geometrical Conic Sections. Plane and Spherical Trigonometry. Elementary Kinematics and Dynamics.

SECOND YEAR.—Analytic Geometry. Differential and Integral Calculus Dynamics of Solids and Fluids.

THIRD AND FOURTH YEARS.—Continuation of Analytic Geometry, Calculus and Dynamics.

Classes may also be held or advanced (optional) work in these or other subjects.

Text-Books (Partial list):—Todhunter's or Mackay's Euclid, Hall & Knight's Elementary Algebra, Wilson's Solid Geometry and Conic Sections, Wentworth's Analytic Geometry, Chandler's Calculus, Blakie's Dynamics, Wright's Mechanics, Bottomley's Mathematical Tables, Chambers' Mathematical Tables.

15. ENGLISH LANGUAGE AND LITERATURE.

Professor:—C. E. Moyse, B.A. (Molson Professor of English Language and Literature).

Lecturer:—C. W. Colby, B.A.

First Year.—English Language and Literature.

Second Year.—A special course on English Composition.

16. FRENCH AND GERMAN.

French Language and Literature.

Professor:—P. J. Darey, M.A., B.C.L., LL.D., Officier d'Académie.

Sessional Lecturer:—J. L. Morin, M.A.

First Year.—Darey, Principes de Grammaire française. Lafontaine, les Fables Livres III et IV. Molière, l'Avare. Dictation. Colloquial exercises.

Second Year.—Simples lectures sur les Sciences, les Arts et l'Industrie, par J. Garrigues et Boutet de Monvel. Short Selections for Translating English into French, by Paul Bercy. Dictation. Parsing. Colloquial exercises.

German Language and Literature.

Lecturer:—L. R. Gregor, B.A.

First Year.—Van der Smissen and Fraser's German Grammar; Joynes' German Reader; Dictation; Colloquial exercises.

Second Year.—Van der Smissen and Fraser's German Grammar; Joynes' German Reader; Freytag, Die Journalisten; Uhland, Ballads and Romances (Macmillan's Foreign School Classics); Parsing; Dictation; Colloquial exercises.

Third Year.—Van der Smissen and Fraser's German Grammar; Lessing, Minna von Barnhelm; Schiller, Siege of Antwerp; History of German Literature; German Composition; Dictation.

17. METEOROLOGY.

Instruction in Meteorological Observations will be given in the Observatory at hours to suit the convenience of the Senior Students.

Certificates will be granted to those Students who pass a satisfactory examination on the construction and use of Meteorological Instruments and on the general facts of Meteorology.

§ XII. LABORATORIES.

In the Laboratories the Student will be instructed in the art of conducting experiments, a sound knowledge of which is daily becoming of increasing importance in professional work.

1. Laboratory of Mathematics and Dynamics.—This Laboratory is fully equipped with instruments for the measurement of distance (scales, micrometers, cathetometer), of area (planimeters) of volume (flasks, graduated vessels, etc.), of time (clocks, chronographs), of mass (beam and spring balances); it is also provided with specific gravity balances, Atwood and Morin machines for experiments on the Laws of Motion, inclined planes, a variety of rotation apparatus (gyroscope, Maxwell's Dynamical Top, torsion balance, pendulums, etc.), air-pumps, thermometers, barometers, etc.

2. Chemical Laboratories.—The Chemical Laboratories are three in number,—one for Students of the First Year; one for Students of the Second and Third Years, in which it has been found necessary to carry on both qualitative and quantitative work; and one which is reserved for Students of the Fourth Year, and for special Students who may wish to carry on original investigations. There is also a special room in the basement which is fitted up for fire assaying.

The Laboratories are supplied with four balances by Becker & Sons, one Bunge and a bullion-balance by Trœmner. There are also a Laurent polariscope, a spectroscope by Duboscq, gas combustion and melting furnaces, apparatus for electrolytic work, etc., etc. Distilled water is obtained by means of a special boiler placed in the basement, which also supplies the steam for drying-ovens, steam baths and drying-chamber in the upper Laboratories.

3. Physical Laboratory.—The McDonald Physical Laboratory contains five storeys, each of 8,000 square feet area. Besides a lecture theatre and its apparatus rooms the Building includes an elementary laboratory nearly 60 feet square; large special laboratories arranged for higher work by advanced students in Heat and Electricity, a range of rooms for optical work and photography; separate rooms for private thesis work by Students; and two large laboratories arranged for research, provided with solid piers and the usual standard instruments. There are also

under various conditions ; there are four cylinders, which can be connected so as to allow of single, compound, triple or quadruple expansion, condensing or non-condensing, with or without jackets. The measurements of heat are made by large tanks, which receive the condensing water and the condensed steam. There are two hydraulic absorption brakes for measuring the mechanical power developed, and an alternative friction brake for the same purpose. Besides this large steam engine, a high speed automatic cut-off by Robb-Armstrong of Amherst, N.S., an Atkinson Cycle and an Otto gas engine, a Stirling hot air engine by Woodbury Merrill of Ticonderoga, are provided and completely fitted for purposes of measurement and research. Many smaller instruments are prol vided or are in course of construction for illustrating the genera- principles of thermodynamics, such as caorimeters, deicate thermo- meters and gauges, a mercury column, apparatus for investigating the properties of superheated steam and other working fluids, draft gauges. pyrometers, fuel testers, indicators, planimeters and a Moscrop recorder.

A 40 horse power two-stage air compressor of modern make for a central station is under construction in the workshops of the College, and will, it is hoped, be added to the Laboratory during next session.

Of the five boiers which appy steam, three are fitted for experimental purposes.

6. Electrical Laboratories.— These consist of :—

(1) *The Electrical Laboratory proper*, where the standard inst ruments are kept and experiments made in the electrica course. The instruments comprise, amongst others, two of Lord Kevin' electric balances, a Thomson galvanometer, four d'Arsonva gava- nometers, two Siemens dynamometers, two Kelvin electrostatic voltmeters, a complete set of Western ammeters and votmeters, besides resistance coils, etc.

Current is supplied to all parts of the room from one of the lighting dynamos direct and from the accumulator room.

(2) *The Magnetic Laboratory*.—Here are set up a ballistic galvanometer, Ewing's curve tracer, and a variety of apparatus made in the College for magnetic tests of various kinds.

a lecture room, with apparatus room attached, for Mathematical Physics, a special physical library, and convenient workshops. The equipment is on a corresponding scale, and comprises: (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by the Students in practical work; (3) the most recent types of all the important instruments for exact measurement, to be used in connection with special work and research.

4. Testing Laboratories.—The principal experiments carried out in these will relate to the elasticity and strength of materials, friction, the theory of structures, the accuracy of springs, gauges, dynamometers, etc., the efficiency of shafting, gearing, etc. The equipment includes a 100-ton Wicksteed and a 75-ton Emery machine for testing the tensile, compressive and tranverse strength of materials. For the former, an addition has been specially designed, by means of which the tranverse strength of timbers up to 25 feet in length can be determined. The Emery machine is constructed and graduated with such accuracy as to render possible delicate experiments on elasticity. The Laboratories are also provided with an autographic torsion machine for testing the torsional strength of materials, machines for determining the effect of repeated stresses, oil testers, strain extensometers, etc., and a very complete supply of gauges, micrometers, and other apparatus for exact measurements.

The importance of tests of the strength of mortars and cements is very great, and the equipment of the Laboratory for the purpose is on a complete plan, including three one-ton tensile testing machines, representing the best English and American practice, steaming apparatus, volumenometers, apparatus for ascertaining standard consistency, mechanical mixers, special weighing hopper, spring balances, gun metal moulds, etc. By means of a line of shafting driven by an electric motor, mixtures are prepared and placed in the moulds, mechanically, thus eliminating the personal error. The Laboratory is also fitted with copper-lined cisterns, in which the briquettes may be submerged for any required time.

5. Thermodynamic Laboratory.—The Thermodynamic Laboratory is furnished with an experimental steam engine of 80 I.H.P., specially designed for the investigation of the behaviour of steam

(3) *The Dynamo Room.*—The apparatus here consists of a 25 K W Edison dynamo, two 12 K W Edison dynamos, a 12 K W Mordey alternator made specially for this laboratory (the coils on the armature can be moved round through any angle, and two or three currents of any phase difference obtained), a 7 K W Victoria dynamo, a 7 K W Fort Wayne dynamo, a 6 K W Thomson-Houston arc-light dynamo, a 15 K W Thomson-Houston incandescent dynamo, and a 5 K W Brush arc-light dynamo. All these are driven off magnetic clutch pulleys by an 80 horse power MacIntosh and Seymour engine. There are also here several different transformers, motors, arc lamps, etc., and a 3 K W motor generator.

(4) *The Lighting Station.*—This comprises a 30 K W Edison-Hopkinson dynamo, and a 30 K W Siemens dynamo, each driven by a Willans high speed engine. The switch-board is arranged so that the building—containing twelve hundred lights—can be lighted by the two dynamos in series, or, if the load is light, by one running on two-wire system or by accumulators. The whole is in every respect typical of the best English and American practice.

(5) *The Accumulator Room.*—Containing Crompton-Howell storage cells of a united capacity of eight hundred ampere hours.

7. Geodetic Laboratory.—There are in this Laboratory a Rogers comparator for the investigation of standards of length, a Rogers angular dividing engine for the graduation and investigation of circles, a Munro-Rogers linear dividing engine, an astronomical clock and chronograph, a portable Bessel's reversible pendulum apparatus, a Whitworth end-measuring machine, level triers etc. In connection with the Laboratory there is also a fifty-foot comparator and standard of length, for standardizing steel bands chains, tapes, rods, etc.

8. Hydraulic Laboratory.—Here the Student will study practically the flow of water through orifices of various forms and sizes, through submerged openings, over weirs, through pipes, mouth pieces, etc. The Laboratory is supplied with several tanks for gauging and other purposes, the largest having a height of 30 feet and a sectional area of 25 square feet, also with a large number of delicate pressure gauges and other apparatus. The Students themselves carry out tests upon hydraulic motors, *e.g.*, upon the different turbines, pumps, the Pelton and other wheels, etc. The facilities

for conducting such experiments are unusually great, as from the city water supply there is an available head of over 200 feet.

By means of specially designed apparatus, investigations are carried out as to the force with which water, issuing from orifices, pipes, nozzles, etc., impinges upon surfaces of various forms and sizes.

This Laboratory is also to be provided with a set of pumps specially designed for experimental work and research. They are to be adapted to work under all pressures up to 120 lbs. per sq. in., and at all speeds up to the highest found practicable. The set is composed of three vertical single acting plunger pumps of 7 in. diam., 18 in. stroke, driven by one shaft. They are to have two interchangeable valve chests, and it is arranged that both the valves and their seats may be removed and replaced by others.

9. Mechanical Laboratory.—In this Laboratory experiments will be carried out on the efficiency of belts, shafting, and machine tools. Governors of all types will be tested with the chronograph. Lubricants by journal friction-testing machine. Sliding and rolling friction and the stiffness of ropes will also form subjects for experiment.

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§ XIII. MUSEUMS.

The Peter Redpath Museum contains large and valuable collections in Botany, Zoology, Mineralogy and Geology, arranged in such a manner as to facilitate the work in these departments. Students have access to this Museum, in connection with their attendance on the classes in Arts in the subjects above named, and also by tickets which can be obtained on application. Students will also have the use of a Technical Museum, occupying the whole of the third storey of the Engineering Building. Amongst other apparatus the Museum contains the Reuleaux collection of kinematic models, presented by W. C. McDonald, Esq., and pronounced by Professor Reuleaux to be the finest and most complete collection in America.

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§ XIV. WORKSHOPS.

The workshops erected on the Thomas Workman Endowment have a floor area of more than 25,000 sq. ft.

The practical instruction in the workshops is designed to give the Student some knowledge of the nature of the materials of construction, to familiarize him with the more important hand and machine tools, and to give him some manual skill in the use of the same. For this purpose, the Student, during a specified number of hours per week, will work in the shops under the superintendence of the Professor of Mechanical Engineering, aided by skilled mechanics. The courses commence with graded exercises, and gradually lead up to the making of joints, members of structures, frames, etc., finally concluding in the iron-working department with the manufacture of tools, parts of machines, and, if possible, with the building of complete machines.

The equipment includes the following:

In the Carpenter, Wood-Turning and Pattern-Making Departments.—Carpenters' and pattern-makers' benches, wood lathes, a large pattern-maker's lathe, circular-saw benches, jig and band saws, buzz-planer, wood-borer, universal wood-worker, etc.

In the Machine Shop.—The most improved engine lathes, a 36-in. modern upright drill, with compound table, universal milling machine, with vertical milling attachment, hand lathes, planer, universal grinding machine, universal cutter and reamer grinder, buffing machine, a 16-in. patent shaper, vise-benches, etc.

In the Smith Shop.—Forges, hand drill, and a power hammer.

In the Foundry.—A cupola for melting iron, core oven, brass furnace, moulders' benches, etc.

The machinery in the shops is driven by a 50 I. H. P. compound engine and a 10 I. H. P. high speed engine.

ADDENDUM.

Good board and lodging may be obtained at $18 per month; or separately, board at $12 to $14, and rooms at $5 to $10 per month. The cost of drawing instruments for the whole course may be placed at from $15 to $30. Gown and overalls, $7 to $10. Books per session $10 to $30.

Estimated necessary cost per session of 7½ months, including fees but exclusive of clothing and travelling expenses, $270 to $320.

FACULTY OF APPLIED SCIENCE—TIME TABLE.

Years	Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
First Year.	9	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Shopwork.
	10	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Do
	11	English.	French. German.	French. German.	French. German.	English.	Do
	12	Chemistry.	English.	Drawing.	Drawing.	Chemistry.	Do
	2 to 5	Geom. Drawing.	Shopwork.	Geom. Drawing (*a*). Mathematical Lab., (*b*).	Freehand Drawing.	Practical Chemistry.	
Second Year.	9	Mathematics.	Mathematics.	French.	Mathematics.	French.	Shopwork, 4.
	10	Physical Laboratory.	German.	Mathematics.	Kinematics, 2, 3. Surveying, 1, 4. Chemistry, 5.	German.	Do
	11	Do	Zoology, 1, 4.	Mathematics. Botany, 5.	Zoology, 1, 4.	Mathematics.	Do
	12	Do Botany, 5.	Experimental Physics.	Kinematics, 2, 3. Surveying, 1, 4.	Experimental Physics.	English.	Do
	2 to 5	Mapping, 1. *Chemistry, 4, 5. Shopwork, 2, 3.	Surveying (1 hr.), 1, 4. Desc. Geom., 1, 2, 3, 4, 5.	Shopwork, 1. * Chemistry, 4, 5. Mechl. Drawing, 2, 3.	Shopwork, 2, 3. Mapping, 1, 4. Chemistry, 5.	Physical Laboratory, 1, 2, 3, 5.	

* The Chemical Laboratories are open to Second, Third and Fourth Year classes daily (Saturdays excepted) from 9 a.m. to 5 p.m.

Field work during September and October, 2 to 5 p.m. For 2nd Year *Civil*, on Mondays, Tuesdays, Wednesdays, Thursdays and Fridays. For *Mining*, on Mondays Tuesdays, Thursdays and Fridays. For 3rd Year *Civil* and *Mining*, on Mondays, Wednesdays, Thursdays and Fridays. For 4th year *Civil*, on Saturday mornings and two first clear evenings each week, 7 to 9.

(*a*) First Term. (*b*) Second Term.

1. Civil Engineering Students. 2. Electrical Engineering Students. 3. Mechanical Engineering Students. 4. Mining Engineering Students. 5. Practical Chemistry Students.

FACULTY OF APPLIED SCIENCE—TIME TABLE—*Continued.*

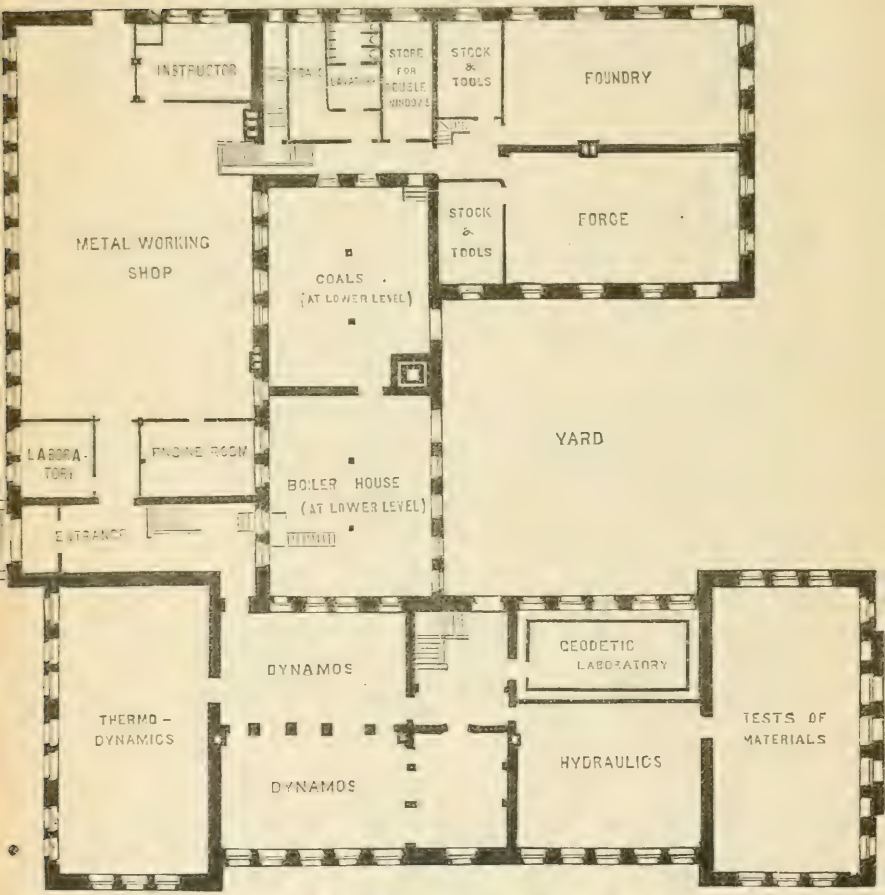
Years	Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
THIRD YEAR.	9	Experimental Physics.	Electrical Eng'ng., 2 (*b*) Physical Lab., 2 (*a*) Mineralogy, 4, 5 (*b*)	Geology, 1, 4, 5. Dyn. of Mach., 2, 3.	Experimental Physics.	Desc. Geom., 1. Mineralogy, 4, 5. Thermo. Lab., 3. Physical Lab., 2.	Testing Lab., 1, 2 (*a*), 3. Electrical Lab., 2 (*b*).
	10	Geology, 1, 4, 5. Dyn. of Mach., 2, 3.	Surveying, 1, 4. Physical Lab., 2 (*a*) Electrical Lab., 2 (*b*)	Desc. Geom., 1. Shopwork, 2, 3. Mining, 4.	Chemistry, 5. Machine Design, 2, 3.	Geology, 1, 4, 5. Thermo. Lab., 3. Physical Lab., 2.	Do
	11	Mathematics.	Ap. Mech., 1, 2 (*a*), 3, 4. Zoology, 5. Electrical Lab., 2 (*b*).	Surveying, 1, 4. Shopwork, 2, 3.	Mathematics. Zoology, 5.	Ap. Mech. 1, 2. Thermo. Lab., 3. Phys. Lab., 2 (*b*). Mining, 4.	Do
	12	Machine Design, 2, 3. Surveying, 1, 4.	Ap. Mech., 1, 2 (*a*), 3, 4 Electrical Lab., 2 (*b*).	Shopwork, 2, 3.	Mathematics.	Ap. Mech., 1, 2, 3, 4	
	2 to 5	Mapping, 1. Shopwork, 2, 3. Chemistry, 4, 5.	Mining, 4. Drawing, 1, 2, 3, 4. Chemistry, 5.	Physical Lab., 1, 2, 3, 5. Chemistry, 4, 5	Mapping, 1. Drawing, 2, 3. Detr. Mineralogy, 4, 5.	Testing Lab., 1. Physical Lab., 2, 4. Thermo. Lab., 3. Chemistry, 5.	
FOURTH YEAR.	9	Geodesy, 1. Dyn. of Mach., 2, 3.	Mineralogy (*a*), 4, 5. Thermodyn. 1, 2, 3, 4.	Electrical Eng'ng, 2. Hydraulic Lab., 1, 3, 4 Geology, 5.	Thermodynamics, 1, 2, 3, 4	Designing, 1. Electrical Eng'ng., 2. Metallurgy, 4, 5. Thermo. Lab., 3.	Designing, 4. Geodetic Lab., 1. Shopwork, 2, 3.
	10	Hydraulics, 1, 3, 4.	Physical Lab., 2. Metallurgy. 4, 5. Mechanical Lab., 3.	Hydraulic Lab., 1, 3, 4. Electrical Lab., 2.	Hydraulics, 1, 3, 4. Metallurgy, 4.	Designing, 1. Geodesy, 1. Electrical Lab., 2. Thermo. Lab., 3.	Do
	11	Mathematics, 1, 2, 3. Geology, 4.	Designing, 4. Ap. Mech., 1. Physical Lab., 2. Mechanical Lab., 3.	Do	Mathematics, (*a*). Designing, 4 (*b*).	Ap. Mech., 1. Electrical Lab., 2. Thermo. Lab., 3. Geology, 4.	Do
	12	Machine Design, 2, 3.	D	Do Mineralogy, 4, 5.	Mathematics, (*a*). Designing, 4 (*b*). Dyn. of Mach. (*b*). 2, 3.	Ap. Mech., 1. Electrical Lab., 2. Thermo. Lab., 3.	Do
	2 to 5	Designing, 1, 2, 3. Assaying, 4. Chemistry, 5.	Testing Lab., 1, 4 (*a*) Physical Lab., 2. Mechanical Lab., 3. Chemistry, 5.	Designing, 1, 3. Electrical Lab., 2. Assaying, 4. Chemistry, 5.	Testing Lab., 1. Physical Lab., 2. Designing, 3. Assaying, 4. Chemistry, 5.	Designing, 4. Electrical Lab., 2. Thermo. Lab., 3. Chemistry, 5.	

(*a*) First Term. (*b*) Second Term.

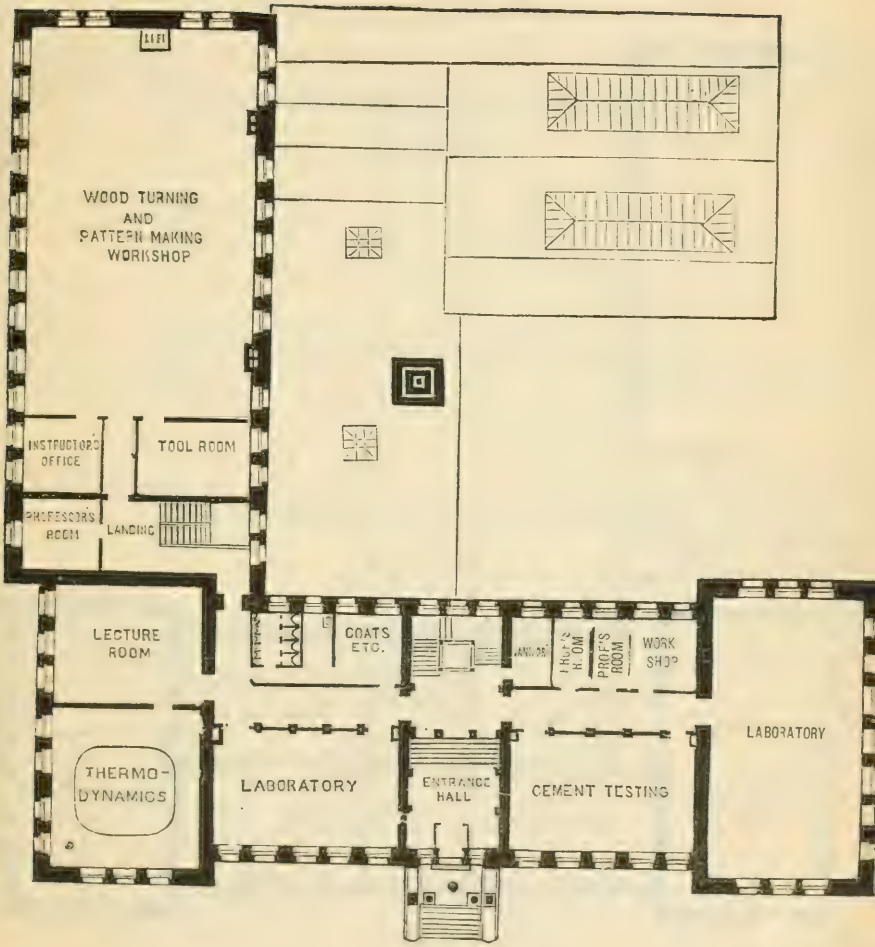
1. Civil Engineering Students. 2. Electrical Engineering Students. 3. Mechanical Engineering Students. 4. Mining Engineering Students. 5. Practical chemistry Students.

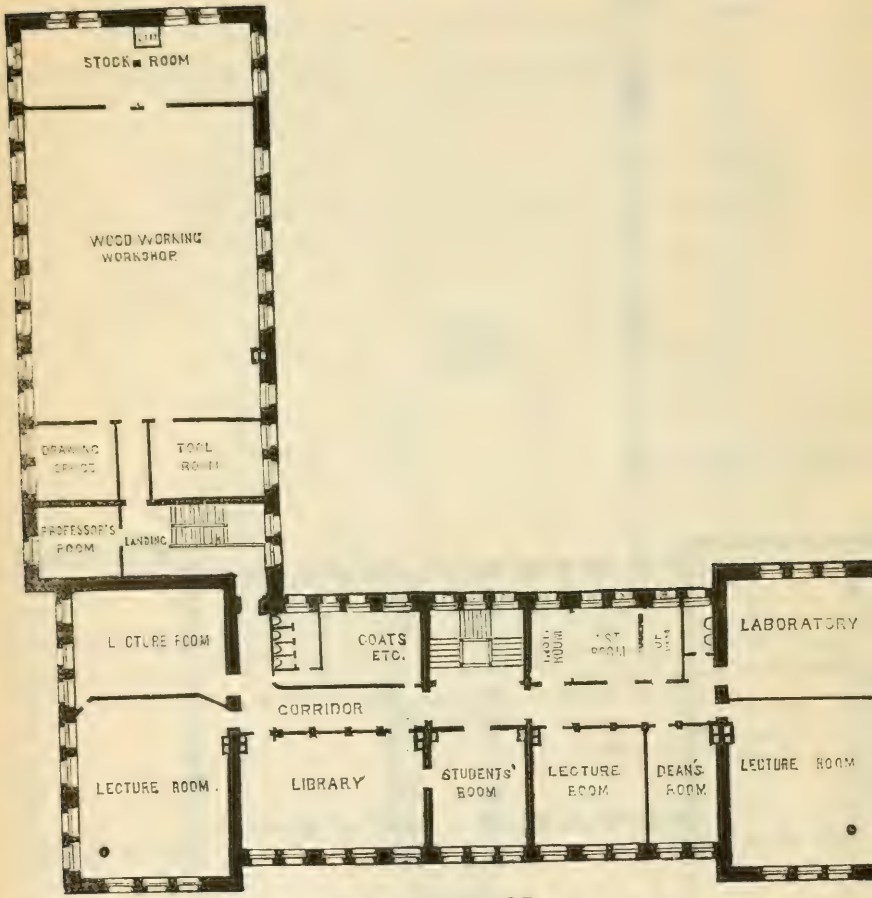
PLANS OF THE APPLIED SCIENCE BUILDINGS.

(Scale: one inch = about forty feet.)

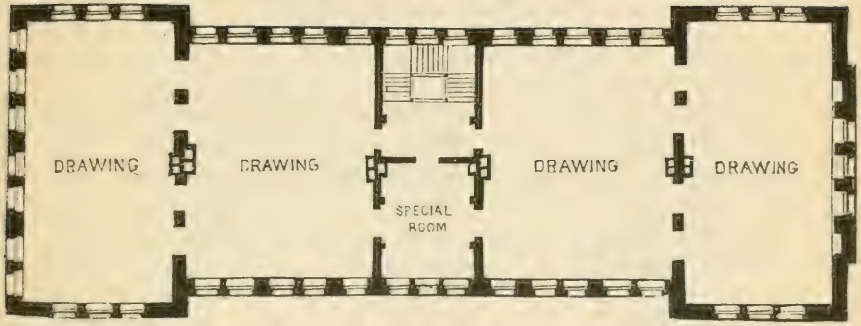


GROUND FLOOR.

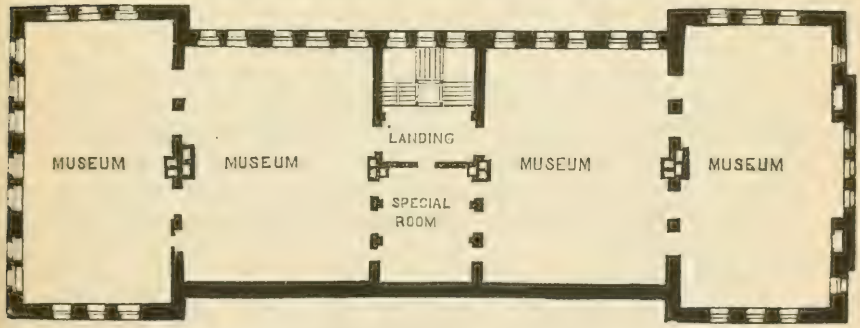

WOOD TURNING AND PATTERN MAKING WORKSHOP
INSTRUCTORS OFFICE
TOOL ROOM
PROFESSORS ROOM
LANDING
LECTURE ROOM
COATS ETC.
LANDING
LADIES' ROOM
PROFS ROOM
WORK SHOP
LABORATORY
THERMO-DYNAMICS
LABORATORY
ENTRANCE HALL
CEMENT TESTING



SECOND FLOOR.



THIRD FLOOR.



FOURTH FLOOR.

Faculty of Medicine.

THE PRINCIPAL (*ex-officio*).

Professors.

WRIGHT,	STEWART,	BELL,
MACCALLUM,	WILKINS,	ADAMI,
CRAIK,	PENHALLOW,	MAJOR,
GIRDWOOD,	MILLS,	ALLOWAY,
RODDICK,	CAMERON,	FINLEY,
GARDNER,	BLACKADER,	LAFLEUR,
SHEPHERD,	RUTTAN,	ARMSTRONG.
BULLER,		

Dean.—R. CRAIK, M.D.
Registrar.—R. F. RUTTAN, M.D.
Librarian.—F. J. SHEPHERD, M.D.
Director of Museum.—J. G. ADAMI, M.D.

The Sixty-Second Session of this Faculty will be opened on Tuesday, October 2nd, 1894, by an introductory lecture at 3 p.m. Lectures for students entering on the study of Medicine this year will begin September 20th. The regular lectures will begin on October 4th, at the hours specified in the time-table, and will be continued for six months.

The Medical School of McGill University was founded in 1822 as the "Montreal Medical Institution" by Drs. W. Robertson, W. Caldwell, A. F. Holmes, J. Stephenson and H. P. Loedel—all of them at that time members of the staff of the Montreal General Hospital.

Although founded in 1822, yet no session of the "Medical Institution" was held until 1824, when it opened with 25 students.

In 1828, the "Medical Institution" was recognized by the Board of Royal Institution as the Medical Faculty of McGill University. At this time the lectures were given in a building on the site of the pre-

sent Bank of Montreal. Later, the school was removed to a brick building still standing near the corner of Craig and St. George streets.

In 1846, the lectures of the Faculty were given in the present central building of the University, now occupied by the Faculty of Arts. Students could reside in the College, board and lodging being charged at the rate of £3-5s. ($13) a month.

On account of the inconvenience arising from the distance of the University Buildings from the centre of the city, it was decided in 1850 to erect a Medical school building in Coté street, provided with ample accommodation for Library and Museum, and furnished with a large dissecting-room and two lecture rooms; this building was occupied for the first time during the session 1851-2, and sufficed for the wants of the Faculty until 1872-73, when the present main building was provided for it by the Governors of the University.

In 1824, the number of students in the Faculty was 25; in 1844, 50; in 1851, 64, with 15 graduates; in 1872-3, 154, with 35 graduates; in 1892-3, 315, with 46 graduates; in 1893-94, 351, with 56 graduates.

There were no sessions held during the political troubles from 1836 to 1839, and it is owing to this gap that the present is the 61st session of the Faculty. This is in reality the 65th session of the school, which is the direct continuation of the "Montreal Medical Institution".

In 1885, the Building in the University grounds, erected by the Governors for the use of this Faculty, was found inadequate. A new building was then added, which, at the time, afforded ample facilities for carrying out the great aim of the Faculty,—that of making the teaching of the primary branches thoroughly practical.

The laboratories and lecture rooms, then added, have now become filled, and so great have been the advances in medicine and in methods of laboratory teaching, that it has been necessary again to increase the number and size of the laboratories. Owing to the timely generosity of Mr. John H. R. Molson, who has already done so much for the University, the Faculty are able to announce that their present facilities for teaching will, this year, be almost doubled.

As will be seen on reference to the architects' plans on pages—, the new buildings have been erected as an extension of the old ones, towards the northwest, partially facing Carlton road, and convenient to the Royal Victoria Hospital. They connect the Pathological building acquired in 1893 with the older buildings, and comprise a large modern lecture room capable of accommodating 450 students, with adjoining preparation rooms and new suites of laboratories for Physiology, Histology, Pharmacology and Sanitary Science. The laboratories, etc., in the older buildings have been enlarged and improved, the whole of the second floor has been devoted to the anatomical department, and will be divided into a dissecting-room, anatomical museum, bone-room, preparation rooms, Professors' and Demonstrators' rooms, etc.

On the ground floor the Library and Museum has been greatly enlarged ; a room forming part of the Library has been set apart as a reading-room for the use of students, where the reference library of the Faculty may be consulted ; and the old chemical laboratories have been increased by including the rooms formerly used by the department of Physiology.

The Faculty is glad to be able to announce that, by the liberality of the Honorable Sir Donald A. Smith in endowing the chairs of Pathology and Sanitary Science with one hundred thousand dollars, it is able to establish these departments on a footing fully commensurate with their importance and with the advances and requirements of modern medical science.

§. I. MATRICULATION.

Intending Students who purpose practising Medicine in Canada are requested to observe that by the Regulations in force in the various Provinces of the Dominion, they are required to pass the Matriculation examination accepted by the several Registering Boards of these provinces before beginning their course of study.

Students holding the degree of Bachelor of Arts are exempted from examination for matriculation, but must present their diplomas and be registered before beginning their studies.

The Preliminary Examination in General Education of the following Bodies is accepted by this University in lieu of its own Matriculation Examination :—

1. The College of Physicians and Surgeons, Ontario.
2. The College of Physicians and Surgeons, Quebec.
3. The New Brunswick Medical Board.
4. The Nova Scotia Medical Board.
5. The Manitoba Medical College.
6. Students who have passed the matriculation examination of a recognized University or who have passed a State or Provincial examination or equivalent work.

Students not having any of the above qualifications for entrance are required to pass one or other of the following examinations :—

1. The June Matriculation in Arts and Medicine of this University, commencing June 1, 1894.

Papers for the June Examination can be sent to local centres on application to the Secretary of the University. The September examinations are held in Montreal only.

The subjects for examination are Classics, Mathematics and English, and one of the optional subjects as below.

Compulsory Subjects.

Latin.—Cæsar, Bell, Gall, Book I., and Virgil, Æneid, Book I., Latin Grammar (On and after June, 1895, two books of Cæsar will be required.)

Mathematics.—Arithmetic (including the Metric System) ; Algebra, to Quadratic Equations inclusive ; Euclid's Elements, Books I., II., III.

English.—Writing from Dictation. A paper on English Grammar, *including* Analysis. A paper on the leading events of English History. Essay on a subject to be given at the time of the examination.

Optional Subjects.

One only of these subjects is required.

(1) *Greek.*—Xenophon Anabasis, Book I., Greek grammar.
(2) *French.*—One author and French grammar.
(3) *German.*— One author and German grammar.
(4) *Chemistry.*)—As in Remsen's Elements of Chemistry (pages 1-160), and *Physics* (Gage and Fessenden's High School Physics, parts I., II., III.

2. The September Examination in Arts and Medicine of the University, held in McGill College only, on Sept. 17th, 1894, and following days, and including the same subjects above stated, except that alternative books in the classical subjects will be accepted.

§ II. ENREGISTRATION.

The following are the University Regulations:—

All Students desirous of attending the Medical Lectures shall, at the commencement of each Session, enroll their names and residences in the Register of the Medical Faculty.

The said Register shall be closed on the last day of October. Fees are payable to the Registrar, and must be paid in advance at the time of enregistration.

§ III. COURSES OF LECTURES.*

ANATOMY.

PROFESSOR, FRANCIS J. SHEPHERD.

Anatomy is taught in the most practical manner possible, and its relation to Medicine and Surgery fully considered. The lectures are illustrated by the fresh subject, moist and dry preparations, sections, models and plates, and drawings on the blackboard.

Special attention is devoted to Practical Anatomy, the teaching being similar to that of the best European schools. The Dissecting Room is open from 8 a.m. to 10 p.m., the work being conducted under the constant supervision of the Professor and his staff of Demonstrators. Special Demonstrations on the Brain, Thorax, Abdomen, Bones, etc., are frequently given. Every Student must be examined *at least* three times on each part dissected, and if the examinations are satisfactory, a certificate is given. Prizes are awarded at the end of the Session for the best examination on the fresh subject. Abundance of material provided.

* For recent alterations in these courses see special Calendar for the Medical Faculty.

CHEMISTRY.

PROFESSOR, GILBERT P. GIRDWOOD.

Inorganic Chemistry is fully treated; a large portion of the course is devoted to Organic Chemistry and its relations to Physiology. The branches of Physics bearing upon or connected with Chemistry also engage the attention of the Class.

For experimental illustration, abundant apparatus is possessed by the College.

The Chemical Laboratory will be open to the members of the class, to repeat experiments performed during the course, under the superintendence of the Professor or Lecturer.

PRACTICAL CHEMISTRY.

PROFESSOR, R. F. RUTTAN.

The course in Practical Chemistry includes two hours' laboratory work three times a week for three months, in both first and second years. The Students are instructed individually in chemical manipulations, blow-pipe analysis, and qualitative determination of the salts, acids, etc., they will require to use in practice. They are required before finishing their course to be familiar with the principles of practical Forensic and Sanitary Chemistry. Special attention is directed to instructing the Student in making accurate notes of his experiments and his conclusions. These notes are examined daily, and criticized. A course of laboratory work in clinical chemistry is given during the spring term of th third year.

PHYSIOLOGY.

PROFESSOR, T. WESLEY MILLS.

The purpose of this Course is to make Students thoroughly acquainted, as far as time permits, with modern Physiology: its methods, its deductions, and the basis on which the latter rest. Accordingly a full course of lectures is given, in which both the Experimental and Chemical departments of the subject receive attention.

In addition to the use of diagrams, plates, models, etc., every department of the subject is experimentally illustrated. The experiments are free from elaborate *technique*, and many of them are of a kind susceptible of ready imitation by the student.

Laboratory work for Senior Students :—

(1) During the first part of the Session there will be a course on Physiological Chemistry, in which the Student will, under direction, investigate food stuffs, digestive action, blood, and the more important secretions and excretions, including urine. All the apparatus and material for this course will be provided.

(2) The remainder of the Session will be devoted to the performance of such experiments as are unsuitable for demonstration to a large class in the lecture room and such as require the use of elaborate methods, apparatus, etc. There will be no extra fee for this part of the course.

HISTOLOGY.

PROFESSOR, GEO. WILKINS.

This will consist of a course of lectures and weekly demonstrations with the Microscope. As the demonstrations will be chiefly relied upon for teaching the Microscopic Anatomy of the various structures, the specimens under observation will then be minutely described. Plates and diagrams specially prepared for these lectures will be freely made use of.

PHARMACOLOGY AND THERAPEUTICS.

PROFESSOR, A. D. BLACKADER.

The course on this subject comprises :—

I. A description of the Pharmacology and Therapeutics of the more important medicinal agents.

II. The delivery of a weekly lecture ("Clinical Therapeutics") in the theatre of the General Hospital, on some case or groups of cases well adapted for illustrating important points in both general and special Therapeutics. The material for these lectures is abundant, being obtained from both the wards and the out-door clinics.

III. The attendance during the summer session of a course on Practical Materia Medica.

MEDICINE.

PROFESSOR, JAMES STEWART.

ASSISTANT PROFESSORS, { F. G. FINLEY, H. A. LAFLEUR.

While the lectures on this subject are mainly devoted to Special Pathology and Therapeutics, no opportunity is lost of illustrating and explaining the *general laws* of disease. With the exception of certain affections seldom or never observed in this country, all the important internal diseases of the body, except those peculiar to Women and Children, are discussed, and their Pathological Anatomy illustrated by the large collection of morbid preparations in the University Museum, and by fresh specimens contributed by the Demonstrator of Morbid Anatomy.

The College possesses an extensive series of Anatomical plates, illustrative of the Histological and Anatomical appearances of disease, and the wards of the General Hospital afford the lecturer ample opportunities to refer to living examples of very many of the maladies he describes, and to give the results of treatment.

CLINICAL MEDICINE.

PROFESSOR, JAMES STEWART.

ASSISTANT PROFESSOR, F. G. FINLEY.

LECTURER, H. A. LAFLEUR.

Bedside instruction is given in the Medical wards of the Montreal General and Royal Victoria Hospitals on three days of every week with third year Students, and three days with those of the fourth year. Accurate reports of all cases are kept by duly appointed clinical clerks, and are systematically read before the class. Instruction is given at the bedside, and every pupil is required to take part in the physical examination of patients. The mode of conducting investigations, the use of the microscope, the value of the thermometer and ophthalmoscope, etc., in medical diagnosis are all explained and illustrated. Senior Students are called upon in rotation to examine new cases before the class, and to be examined

thereon as to their general knowledge. In addition, one weekly Clinical Lecture is delivered, bearing upon some case or cases of importance which may happen to be under observation at the time. Special attention is directed to Medical Anatomy, and candidates for the degree will be examined thereon.

SURGERY.

PROFESSOR, THOMAS G. RODDICK.

The first part of this course consists of Surgical Pathology, illustrated by a large collection of preparations from the College Museum, also specimens as they are obtained from cases under observation at the Hospital, and contributed to that collection by the Hospital pathologist and from private sources. The second part of the course is devoted to the practice of Surgery, in which attention is drawn to cases which have been observed by the class during the previous summer session. The various surgical appliances are exhibited, and their uses and application explained. Surgical Anatomy and Operative Surgery form a special department of this course, and Quain's and Maclise's plates are used in illustration.

CLINICAL SURGERY.

PROFESSOR, JAMES BELL.

ASSISTANT PROFESSOR, GEO. ARMSTRONG.

This course is eminently practical, consisting of bedside instruction and lectures delivered weekly, illustrative of surgical cases actually present in the wards of the General Hospital. The class is separated into junior and senior divisions, which are taken charge of by the Professor on alternate days, when the reports of the Clinical clerks are read and criticized, and fresh cases are examined by the Senior Students. The surgical dressings are, as much as possible, reserved for these occasions, so as to give all present an opportunity of participating in the application of splints to fractures, dressing of wounds, minor operations, etc. Major operations are performed in the theatre attached to the Hospital, which is so constructed that the most distant can obtain a fair view of the operations. All the recently invented appliances for the treatment of surgical disease have been introduced into the Hospital.

MIDWIFERY.

PROFESSOR, J. C. CAMERON.

The course will embrace: 1. Lectures on the principles and practice of the obstetric art, illustrated by diagrams, fresh and preserved specimens, the artificial pelvis, complete set of models, illustrating deformities of the pelvis, wax preparations, bronze mechanical pelvis, etc. 2. Bedside instruction in the Montreal

Maternity, including the management and after-treatment of cases. 3. A complete course on obstetric operations with the phantom and preserved fœtuses. 4. The Diseases of Infancy. 5. A course of individual clinical instruction at the Montreal Maternity.

Particular attention is given to clinical instruction, and a clinical examination in Midwifery, similar to that held in Medicine and Surgery, now forms part of the final examination.

GYNÆCOLOGY.

PROFESSOR, WM. GARDNER.

ASSISTANT PROFESSOR, T. JOHNSTON ALLOWAY.

The course on this subject will comprise two lectures a week throughout the session. The anatomy and physiology of the parts concerned will be first discussed. Then the various methods of examination will be fully described, the necessary instruments exhibited, and their uses explained. After this, the diseases peculiar to the sex will be considered as fully as time will permit, in the following order :—Disorders of Menstruation ; Leucorrhœa, its causes and treatment ; Pelvic Cellulitis and Peritonitis ; Lacerations of the Cervix Uteri and Perineum ; Urinary and Fæcal Fistulæ ; Inflammations of the Uterus ; Displacements of the Uterus ; Tumors of the Uterus ; Diseases of the Ovaries.

The lectures will be illustrated as fully as possible by drawings and morbid specimens. The Gynæcological Clinic of the General Hospital furnishes the Professor with ample material to illustrate the subjects considered in the didactic lectures.

Particular attention is given to clinical instruction, and a clinical examination in Gynæcology, similar to that held in Medicine and Surgery, now forms part of the final examination.

MEDICAL JURISPRUDENCE.

PROFESSOR, GEO. WILKINS.

This course includes Insanity, the subject being treated of in its Medical as well as Medico-legal aspects. Special attention is devoted to the subject of blood stains, the Clinical, Microscopic and Spectroscopic tests for which are fully described and shown to the class. The various spectra of blood in its different conditions are shewn by Zeiss' Microspectroscope, so well adapted for showing the reactions with exceedingly minute quantities of suspected material. Recent researches in the diagnosis of human from animal blood are alluded to. In addition to the other subjects usually included in a course of this kind, Toxicology is taken up. The modes of action of poisons, general evidence of poisoning, and classification of poisons are first treated of, after which the more common poisons are described, with reference to symptoms, post-mortem appearances, and chemical tests. The post mortem appearances are illustrated by plates, and the tests are shown to the class.

OPHTHALMOLOGY AND OTOLOGY.

PROFESSOR, FRANK BULLER.

Will include a course of lectures on diseases of the Eye and the Ear, both didactic and clinical. In the former, the general principles of diagnosis and treatment will be dealt with, including three lectures on the errors of refraction and faults of accommodation; in the clinical lectures given in the hospital, cases illustrative of the typical form of ordinary diseases of the eye and ear will be exhibited and explained to the class. In the out-patient department of the hospital, Students have excellent opportunities of gaining clinical experience.

HYGIENE.

PROFESSOR, ROBERT CRAIK.

Comprises lectures on Drinking Water and Public Water Supplies; conditions of Soil and Water as affecting health, including Drainage and the various methods for the removal of Excreta; the Atmosphere, including Heating and Ventilation; Individual Hygiene, comprising the subjects of Food and Drink; Physical Exercise and Bathing; discussion of the respective merits of the various forms of each, precautions, contra-indications, etc.; Village Sanitary Associations; Mutual Protective Sanitary Association for cities.*

BOTANY.†

PROFESSOR, D. P. PENHALLOW.

The purpose of this course is to give Students a good grounding in the principles of General Morphology, and advance their knowledge of the comparative physiology of animals and plants, and enable them to determine readily such species of plants as may come under their observation.

It comprises:—

1. A course of lectures on general Morphology and Classification, Histology and Physiology. The lectures are illustrated by means of the microscope and by the models and large collections in the Peter Redpath Museum.

2. Practical work in the determination and classification of Species, for which the Botanic Gardens of the University offer special facilities.

3. Studies in Canadian Botany. This work is prosecuted by means of field excursions, which are held as often as opportunity is afforded during the autumn months.

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* Students may attend the Lectures on Sanitation in the Faculty of Applied Science.—Fee $6.

† Exemptions from Botany in the Matriculation, for Arts Students, do not entitle Students to exemptions in the First Year. Students may take in their first year either Botany or Zoology, subject, however, to the provisions of the law in the Province in which they intend to practise medicine. Students desirous to take both subjects in one year may apply to the Faculty for permission.

4. A special collection of Medicinal plants, now being formed at the Botanic Gardens, offers a valuable preparation to the course in Pharmacology.

PATHOLOGY.

PROFESSOR, J. G. ADAMI.

The following courses constitute the teaching in this subject :—

A. *Obligatory.*

1. A course of General Pathology for Students of the Third Year (optional for those of the Fourth). This course extends from October to March, lectures being delivered thrice weekly.

2. A course of Demonstrations upon the autopsies of the week, with instruction in the performance of autopsies. These demonstrations are held once a week, from October until July. For Students of the Third Year (optional for those of the Fourth).

3. The performance of autopsies. Each student is required to take an active part in at least six autopsies. The autopsies are conducted at the General and Royal Victoria Hospitals by the Pathologist* to these Hospitals, and his assistants In addition to the actual performance of the *sectio cadaveris*, Students are expected to attend the practical instruction given in connection with each autopsy, in the method of preparation and microscopic examination of the removed tissues, so as to become proficient in methods of preparation, staining and mounting.

B. *Optional.*

4. A practical course in Morbid Histology for Students of the Third Year. This class is held once a week during the winter months. Six sections are as a rule distributed at each meeting of the class, so that each Student obtains a large and representative series of morbid tissues, and upon an average twenty minutes are devoted to the description and examination of each specimen. Fee $4.

5. A course of demonstrations upon Morbid Anatomy Museum specimens) once weekly during the winter months, for Students of the Fourth Year. Free.

6. A course of Bacteriology, with demonstrations, held thrice weekly during the Summer Term. For Students of the final year.

7. A practical course of clinical microscopy, held thrice weekly during the summer session. For Students of the final year.

This course, in addition to instruction in the microscopical study of the fluids of the body, excreta, etc., in diseased conditions, includes instruction in the stains and detection of the commoner pathogenic bacteria. Fee $2.

* The Professor of Pathology at the present time occupies this post at both Hospitals.

8. A practical course of Bacteriology for advanced students. Fee $10.

In addition to the above, lectures upon Special Pathology are given by the Professor of Pathology in connection with the courses in Medicine and Surgery.

ZOOLOGY.*

LECTURER, W. E. DEEKS, B.A., M.D.

This course includes a systematic study of the classification of animals, illustrated by Canadian examples and by the collections in the Peter Redpath Museum. It forms a suitable preparation for collecting in any department of Canadian Zoology and Palæontology, and an introduction to Comparative Physiology. It may be taken instead of Botany, or along with it, without any additional fee. Students in Botany or Zoology will receive tickets to the Peter Redpath Museum and to the Museum of the Natural History Society of Montreal.

PRACTICAL MICROSCOPY.

This is an entirely *Optional* Course, and will be conducted by Prof. Wilkins. It is intended especially for teaching the *technique* of Microscopy. Students will be shown how to examine blood, etc., also to cut, stain and mount specimens. Everything except over-glasses and cabinet cases provided. Fee $8.

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§ IV. QUALIFICATIONS FOR THE DEGREE.†

1st. No one entering after September, 1894, will be admitted to the Degrees of Doctor of Medicine and Master of Surgery who shall not have attended Lectures for a period of four nine months' sessions or its equivalent in the University, or some other University, College or School of Medicine approved of by this University.

2nd. Students of other Universities so approved and admitted, on production of certificates to a like standing in the University, shall be required to pass the primary and final examinations in the same manner as Students of the Faculty of Medicine of this University.

* See under "Botany" supra.

† The changes in the requirements for the degree do not apply to students who are now enregistered in Medicine.

3rd. Candidates for Final Examination shall furnish testimonials of attendance on the following branches of Medical Education, viz. :—

Anatomy.	Of which two full courses will be required.
Practical Anatomy.	
Physiology.	
Chemistry.	
Materia Medica and Therapeutics.	
Principles and Practice of Surgery.	
Obstetrics and Diseases of Infants.	
Gynæcology.	
Theory and Practice of Medicine.	
Clinical Medicine.	
Clinical Surgery.	
Medical Jurisprudence.	Of which one full Course will be required.
General Pathology.	
Hygiene and Public Health.	
Practical Chemistry.	
Botany or Zoology.	Of which one Course will be required.*
Histology.	
Pathological Anatomy.	
Bacteriology.	
Mental Diseases.	

Provided, however, that testimonials equivalent to though not precisely the same as those above stated may be presented and accepted.

4th. Courses of less length than the above will only be received for the time over which they have extended.

5th. The Candidate must give proof by ticket of having attended during eighteen months the practice of the Montreal General Hospital or of the Royal Victoria Hospital, or that of some other Hospital approved of by this University

6th. He must also give proof of having acted as clinical clerk for six months in medecine six months in surgery in the wards of a general Hospital recognized by the Faculty.

7th. He must also give proof of having assisted at six autopsies.

8th. He will be required to show by certificate that he has dispensed and compounded medicines for six months or has taken a full course in Practical Pharmacy.

9th. He must also give proof by ticket of having attended for at least nine months the practice of the Montreal Maternity or other Lying-in-Hospital approved of by this University, and of having attended at least ten cases of labor.

10th. No one will be permitted to become a candidate for the final or degree examination who shall not have attended at least one Session of this University.

11th. Candidates who fail to pass in any two subjects of either the first or second years may be granted a supplemental examination at the beginning of the following session.

* A course in Medical Surgery and topographical anatomy will be given for students qualifying for the Ontario Medical Council.

12th. Supplemental examinations will not be granted except by special permission of the Faculty, and on written application stating reasons, and accompanied by a fee of $5 for each examination.

13th. No Candidate will be permitted, without special permission of the Faculty, to proceed with the work of the final year until he has passed the subjects comprised in the Primary Examination.

14th. No student will be allowed to present himself for his final examinations who has not certificates of having passed all his Primary examinations in this University.

15th. Candidates who fail to pass in a subject of which two courses are required may, at the discretion of the Faculty, be required to attend a third course, and furnish a certificate of attendance thereon. A course in Practical Anatomy will be accepted as equivalent to a third course of lectures in General and Descriptive Anatomy.

16th. Every Candidate for the Degree must, on or before the 15th day of May, present to the Registrar of the Medical Faculty, testimonials of his qualifications, entitling him to an examination, and must at the same time deliver to the Registrar of the Faculty an affirmation or affidavit that he has attained the age of twenty-one years.

17th. The trials to be undergone by the Candidate shall be such as are referred to under Section V.

18th. The following Oath or Affirmation will be exacted from the Candidate before receiving his degree :—

SPONSIO ACADEMICA.

In Facultate Medicinæ Universitatis.

Ego, A——B——, Doctoratus in Arte Medica, titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo : me in omnibus grati animi officiis erga hanc Universitatem ad extremum vitæ halitum perseveraturum : tum porro artem medicam caute, caste et probe exercitaturum ; et quoad in me est, omnia ad ægrotorum corpurum salutem conducentia, cum fide procuraturum ; quæ denique, inter medendum, visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita præsens mihi spondenti adsit Numen.

19th. The fee for the Degree of Doctor of Medicine and Master of Surgery shall be thirty dollars, to be paid by the successful Candidate immediately after examination.

§ V. EXAMINATIONS.

Frequent oral examinations are held, to test the progress of the Student ; and occasional written examinations are given throughout the Session.

The pass examinations at the close of each Session are arranged as follows :—

First Year

Examinations in Botany* or Zoology, Histology, Physiology, Anatomy and Chemistry.*

Marks obtained in those subjects not completed in the first year will count for both Pass and Honours in the Primary Examinations.

Second Year.

Examinations in Anatomy, Chemistry, Practical Chemistry, Physiology, Histology, Pharmacology and Therapeutics.

Third Year.

Examinations in Pharmacology and Therapeutics, Medical Jurisprudence, Hygiene, General Pathology, Mental Diseases, Medicine and Surgery.

Fourth Year.

Examinations in Medicine, Surgery, Obstetrics, Gynæcology, Clinical Medicine, Clinical Surgery, Clinical Obstetrics, Clinical Gynæcology, Practical Pathology, Clinical Ophthalmology and Bacteriology.

By means of the above arrangement a certain definite amount of work must be accomplished by the student, in each year, and an equitable division is made between the Primary and Final branches.

In order to pass in any subject it is necessary to make 50 *per cent.*; *and to obtain Honours it is necessary to make* 75 *per cent.*

§ VI. MEDAL AND PRIZES.

1. The "Holmes Gold Medal," founded by the Medical Faculty in the year 1865, as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine; it is awarded to the Student of the graduating class who receives the highest aggregate number of marks in the different branches comprised in the Medical Curriculum.

The Student who gains the Holmes Medal has the option of exchanging it for a Bronze Medal, and the money equivalent of the Gold Medal.

*Students who have taken one or more courses in Botany or Chemistry before entering may be exempted from attendance and examination. Students exempted in their first year subjects are allowed only a pass standing, but may present themselves for examination.

2nd. The "Final Prize," a prize in Books, or a microscope of equivalent value, awarded for the best examination, written and oral, in the Final branches. The Holmes medalist is not permitted to compete for this prize.

3rd. The "Primary Prize," a prize in Books awarded for the best examination, written and oral, in the Primary branches.

4th. The "Sutherland Gold Medal," founded in 1878 by the late Mrs. Sutherland in memory of her late husband, Professor William Sutherland, M.D.; it is awarded for the best examination in Theoretical and Practical Chemistry, together with creditable examination in the Primary branches.

5th. A Prize in Books for the best examination in Practical Anatomy.

6th. A Prize in Books for the best examination in Botany.

7th. The "Clemesha Prize in Clinical Therapeutics," founded in 1889 by John W. Clemesha, M.D., of Port Hope, Ont. It is awarded to the Student making the highest marks in a special clinical examination.

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§ VII. FEES.

The total Faculty fees for the whole Medical course of four full sessions, including clinics, laboratory work, dissecting material and reagents, will be four hundred dollars payable in four annual instalments of one hundred dollars each.

Partial Students will be admitted to one or more courses on payment of special fees.

An annual University fee of two dollars is charged students of all the Faculties for the maintenance of the College athletics.

(For graduation fee, see—supra.)

All fees are payable in advance to the Registrar, and, except by permission of the Faculty, will not be received later than 1st November.

It is suggested to parents or guardians of Students, that the fees be transmitted direct by cheque or P.O. Order to the Registrar, who will furnish official receipts.

§ VIII. TEXT-BOOKS.

(*Prices current in Montreal.*)

ANATOMY.—Morris, Gray, Quain (Eng. ed.).

PRACTICAL ANATOMY.—Cunningham's Practical Anatomy, Holden's Dissector and Landmark's Ellis' Demonstrations.

PHYSICS.—Balfour Stewart.

INORGANIC CHEMISTRY.—Wurtz's Elementary Chemistry, Remsen's Text-Book.

ORGANIC CHEMISTRY.—Remsen.

PRACTICAL CHEMISTRY.—Odling.

PHARMACOLOGY and THERAPEUTICS.—Wood, Hare, Edes and Bruce.

PHYSIOLOGY. — Huxley's *Elementary Lessons,* Foster, Mills' Text-Book of Animal Physiology and Class Laboratory Exercises.

PATHOLOGY.—Delafield and Prudden, Payne, Boyce, Frankel's, Bacteriology or Woodhead.

HISTOLOGY.—Klein's Elements, Schafer's Essentials of Histology.

SURGERY.—Holmes' Surgery (Eng. ed.), Erichsen, Druitt, Bryant, Treves and the American Text Book of Surgery.

PRACTICE OF MEDICINE.—Osler, Strümpell, Fagge and Flint.

CLINICAL MEDICINE.—Musser's Medical Diagnosis, Fenwick on Medical Diagnosis, Jaksch on Clinical Diagnosis.

MEDICAL JURISPRUDENCE.—Husband, Guy and Ferrier, Reese.

MIDWIFERY.—Lusk, Parvin, Playfair and Barnes.

DISEASES OF CHILDREN.—Smith, Goodhart and Starr.

GYNÆCOLOGY.—Thomas and Mundé, Skene, Garriques.

HYGIENE.—Parks, Wilson (Eng. ed.).

BOTANY.—Gray's Text-Book of Histology and Physiology.

ZOOLOGY.—Dawson's Handbook of Canadian Zoology.

OPHTHALMOLOGY.—Nettleship, Higgins, De Schwinitz.

OTOLOGY.—Pritchard, Dulby.

LARYNGOLOGY.—Haveland Hall.

MEDICAL DICTIONARY.—Gould, Dunglison.

§ IX. MUSEUM.

Prof. J. G. Adami, Director.
E. P. Williams, M.D., Assistant Curator.
M. Bailly, Osteologist and Articulator.

For the past fifty years, the rich Pathological material furnished by the Montreal General Hospital has been collected here. The Faculty is also greatly indebted to many medical men throughout Canada and different parts of the world for important contributions to the Museum.

During the past few years, numerous and extremely important additions have been made to the Medical Museum. (See special Announcement of the Faculty of Medicine,)

It is particularly rich in specimens of Aneurisms. In addition to containing a large number of the more common varieties of these formations, there are specimens of such rare conditions as Aneurism of the Hepatic and Superior Mesenteric Arteries, Traumatic Aneurism of the Vertebral, together with several of the Cerebral and Pulmonary Arteries. The most important collection probably in existence, of hearts affected with "Malignant Endocarditis," is also found. The Faculty is indebted to Prof. Osler, late of this University, for this collection.

The Museum contains also a very large collection of different forms of calculi. The Faculty is mainly indebted to the late Prof. Fenwick for this collection.

During recent years, Mr. Bailly, osteologist and articulator (lately with Tramond of Paris), has been engaged in arranging and mounting the very large number of specimens of disease and injuries of bones which have been accumulating for years. In this collection are to be found examples of fractures and dislocations of the spine, osteoporosis, congenital dislocation of the hip, fracture of the astragalus, multiple exostosis, etc., etc.

Obstetrical Department of the Museum.

Besides the ordinary pathological preparations, dry and moist, usually found in Museums, this department contains a complete set of models of deformed pelves, a series of preparations in wax illustrating the normal relations of the pelvic organs, the development

of the uterus and its contents during pregnancy, various abnormalities, twin pregnancy, fœtal circulation, etc., a series of colored casts of frozen sections, Tarnier's artificial pelvis, Budin's bronze mechanical pelvis, models of obstetrical instruments, etc.

Additions are being constantly made, and ere long the department will possess a complete collection of models, casts, preparations and apparatus for the practical teaching and illustration of Obstetrics.

Anatomical Museum.

In addition to the already large collection of normal and abnormal osteology, comparative and human skeletons of various classes of animals, moist preparations and frozen sections, the following preparations have been recently obtained:

(1) A series of articulated skeletons of fore and hind limbs of the various domestic animals prepared by the articulator, Mr. Bailly.

(2) Numerous moist preparations presented by the Professor and Demonstrator of Anatomy.

(3) A complete set of Steger's beautiful colored casts, taken from the celebrated frozen sections of Professors His and Braune of Leipzig. These preparations have been placed in the Museum so that they can be constantly consulted by the Students.

(4) (*a*) A complete set of Steger's brain sections;

(*b*) Set of hardened brains with the various lobes, convolutions, ganglia, etc., in different colors;

(*c*) Models of the cerebro-spinal and sympathetic nervous systems;

(*d*) A set of Prof. D. J. Cunningham's beautiful casts of the brain in situ, showing the relations of convolutions to the skull.

(5) (*a*) A set of preparations showing the anomaly of vessels entering the kidneys;

(*b*) A number of rare anomalies of the aorta and its branches;

(*c*) A series of preparations showing the shoulder girdle in various animals.

For additions to the Museum during the past year, see special announcement of the Faculty of Medicine.

§ X. LIBRARY.

Prof. F. J. Shepherd.....Librarian.
Miss C. G. Forester.....Assist. Librarian.

The Library of the Medical Faculty now comprises upwards of over fourteen thousand volumes, the largest special library connected with any medical school on this continent.

The standard text-books and works of reference, together with complete files of the leading periodicals, are on the shelves. Students may consult any work of reference in the library between 10 a.m. and 5 p.m. A library reading room is provided.

§ XI. McGILL MEDICAL SOCIETY.

This Society, composed of enregistered Students of the Faculty, meets once a week during the spring term and fortnightly during the Winter, for the reading of papers and the discussion of medical subjects. It is presided over by a physician chosen by the members.

The Students, reading room has been placed under the control of this Society, in which the leading English and American Medical journals are on file, as well as the leading daily and weekly newspapers of the Dominion.

An extensive library of books of reference has also been established in connection with this Society.

§ XII. COST OF LIVING, ETC.

This will, of course, vary with the taste and habits of the Student, but the necessary expenses need not exceed those in smaller towns. Good board may be obtained from $15 to $20 per month. A list of boarding houses which are inspected annually by a sanitary committee is prepared by the Secretary of the University, and may be procured from the Janitor at the Medical College.

§ XIII. HOSPITALS.

The city of Montreal is celebrated for the number and importance of its public charities. Among these its public hospitals are the most prominent and widely known. Those in which Medical students of McGill University will receive clinical instruction are :—1.

The Montreal General Hospital; 2. The Royal Victoria Hospital; 3. The Montreal Maternity Hospital. The Montreal General Hospital has for many years been the most extensive clinical field in Canada. The old buildings, having proved inadequate to meet the increased demand for hospital accommodation, have recently been increased by the addition of the Campbell Memorial and Greenshields surgical pavilions and the new surgical theatre. The interior of the older buildings is now being entirely reconstructed on the most approved modern plans.

The Royal Victoria Hospital, at the head of University street, was opened for the reception of patients the first of January, 1894, and affords exceptional opportunities for clinical instruction and practical training.

Montreal General Hospital.

The main building contains an administration of block and wards for general medecine for Gynaecology and Ophtholmology and in addition are two Surgical Pavilions.

Attached to the two new surgical pavilions which contain over 100 beds is a large building containing a surgical amphitheatre furnished with all the modern appliances for the carrying out of aseptic methods.

Besides the theatre, which has a seating capacity of 300, and its adjoining rooms for etherizing, for instruments and for the preparation of surgical dressings, there are on the same flat smaller operating rooms and isolation wards; commodious laboratories for clinical chemistry, bacteriology and general pathological work are provided in the basement of the Campbell Memorial wing.

A much larger number of patients receive treatment in the Montreal General Hospital than in any other Canadian hospital. Last year's report shows that between two and three thousand medical and surgical cases were treated in the wards, and the greater part of these were acute cases, as may be gathered from the fact that the average duration of residence was only 24.02 days. Upwards of thirty-two thousand patients are annually treated in the out-door department of this Hospital.

Annual tickets entitling students to admission to the Hospital must be taken out at the commencement of the Session, price $5.00. These are obtained at the Hospital. Perpetual tickets will be given on payment of the third annual fee.

The Royal Victoria Hospital.

This Hospital is situated a short distance above the University grounds, on the side of the mountain, and overlooks the city. It was founded in July, 1887, by the munificence of Lord Mount-Stephen and Sir Donald Smith, who gave half a million dollars each for this purpose, and have since endowed it with one million dollars in addition.

The buildings, which were opened for the reception of patients on the first of January, 1894, were designed by Mr. Saxon Snell of London, England, to accommodate between 250 and 300 patients.

The Hospital is composed of three massive buildings connected together by stone bridges, and administration block in the centre, and a wing on the east side for medical patients, in immediate connection with which is the new Pathological wing and mortuary, and a wing on the west side for surgical patients.

The administration block contains ample accommodation for the resident medical staff, the nursing staff and domestics. The patients' entrance, the dispensary and admission rooms also are situated in this building.

The Medical wing contains three large wards, each 123 feet long by 26 feet 6 inches wide, one ward 40 feet by 26 feet 6 inches, and twenty-one private and isolation wards averaging 16 feet by 12 feet, also a Medical Theatre with a seating capacity for 250, and rooms adjacent to it for Clinical Chemistry and other purposes.

North of this wing and in direct connection with it are the Pathological laboratories and mortuary. In this wing are situated the mortuary proper with the most modern arrangements for the preservation of cadavers, the chapel, a post mortem room capable of accommodating 200 students, and laboratories for the microscopic and bacteriological study of morbid tissues, some designed for the use of students and others for post graduation courses and special research. Laboratories for Pathological Chemistry and Photography are also provided.

The surgical wing contains three large wards each 122 feet long by 26 feet 6 inches wide, four wards each 40 feet by 32 feet, and sixteen private and isolation wards averaging 16 feet by 12 feet; also a Surgical Theatre with a seating capacity for 250, with six accessory rooms adjacent for preparation and after-recovery purposes. In this wing are the wards for Gynæcology and Ophthalmology.

CLINICAL INSTRUCTION.

During the session of 1894-95, two medical, two surgical, two gynæcological and two ophthalmological clinics will be held weekly in both the Montreal General and Royal Victoria Hospitals.

Tutorial instruction will also be given in these different departments, in the wards, out-patients' rooms and laboratories.

Special weekly clinics will be given in the Montreal General Hospital on Dermatology and Laryngology, and in the Royal Victoria Hospital on diseases of the Genito-Urinary system.

Clinical Clerks in the medical and surgical wards of both Hospitals are appointed every three months, and each one during his terms of service conducts, under the immediate directions of the Clinical Professors, the reporting of all cases in the ward allotted him. Students entering on and after October next will be required to show a certificate of having acted for six months as clinical clerk in medicine and six months in surgery. The experience so gained is found to be of the greatest possible advantage to the Student, as affording a true *practical* training for his future professional life.

Dressers are also appointed to the Out-door Departments. For these appointments, application is to be made to the assistant surgeons, or to the resident surgeon in charge of the out-patients' department.

The large number of patients affected with diseases of the eye and ear, now attending the out-door department, will afford Students ample opportunity to become familiar with all the ordinary affections of those organs, and to make themselves proficient in the use of the ophthalmoscope, and it is hoped that every student

will thus seek to gain a practical knowledge of this important branch of Medicine and Surgery. Operations are performed on the eye by the Ophthalmic Surgeon after the out-door patients have been seen, and Students are invited to attend the same, as far as practicable, to keep such cases under observation so long as they remain in the Hospital.

There are now special departments in both Hospitals for Gynæcology as well as for Ophthalmology.

The Montreal Materni

The Faculty have great pleasure in announcing that the Corporation of the Montreal Maternity have recently made very important additions to their building, and have still further improvements in contemplation. Students will therefore have greatly increased facilities for obtaining a practical knowledge of obstetrics. An improved Tarnier-Budin phantom is provided for the use of the Students, and every facility afforded for acquiring a practical knowledge of the various obstetric manipulations. The institution is under the direct supervision of the Professor of Midwifery, who devotes much time and attention to individual instruction. Students who have attended the course on obstetrics during the Autumn and Winter terms of the third year will be furnished with cases in rotation, which they will be required to report and attend till convalescence. Clinical midwifery has been placed upon the same basis as Clinical Medicine and Surgery, and a final clinical examination instituted. Regular courses of clinical lectures are given throughout the session. During the Autumn and Winter terms the demonstrator of Obstetrics gives clinical demonstrations in the wards and instruction in operation work on the phantom. Students will find it very much to their advantage to pay special attention to their clinical work during the spring term of the third year and the following summer. Two resident accoucheurs are appointed yearly from the graduating class, to hold office for a period of six months each.

Fee for twelve months, $12, payable at the Maternity Hospital.

§ XIV. STUDENTS' APPOINTMENTS.

General Hospital—Five Resident Medical Officers.
Clinical Clerk, Gynæcology.
" " Laryngology.
" " Diseases of Children.
" " Dermatology.
" " Diseases of Nervous System.
University Maternity—Two Resident Medical Officers.
Out-Door Dressers.
Dressers in Eye and Ear Department.
Surgical Dressers (in-door).
Medical Clinical Clerks.
Post-mortem Clerks.
Student Demonstrators of Anatomy, 4 third-year Students.
Prosectors to Chair of Anatomy, 2.
Assistants in Practical Histology Course, 2.
Assistants in Practical Physiology Course, 4.
Assistants in Practical Chemistry, 4.

§ XV. RULES FOR STUDENTS.

1. In the case of disorderly conduct, any Student may, at the discretion of the Professor, be required to leave the Class-room. Persistence in any offence against discipline after admonition by the Professor shall be reported to the Dean of the Faculty. The Dean may, at his discretion, reprimand the Student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from classes.

2. Absence from any number of lectures can only be excused by necessity or duty, of which proof must be given, when called for, to the Faculty. The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a Session shall in each case be determined by the Faculty.

3. While in the College, Students are expected to conduct themselves in the same orderly manner as in the Class-room.

When Students are brought before the Faculty under the above rules, the Faculty may reprimand, impose fines, disqualify from competing for prizes and honours, suspend from Classes, or report to the Corporation for expulsion.

TIME TABLE—FIRST AND SECOND YEARS, FOR PAST SESSION (1892-93).†

A.M.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday
9	Anatomy Examination.	Anatomy.	Anatomy.	Anatomy.	Anatomy.	Practical Chemistry,
10	* Practical Chemistry, 2nd Year, till 12 o'clock.	Practical Chemistry, Botany, 1st Year.	Practical Chemistry, 2nd Year.	Practical Chemistry, Botany, 1st Year.	Practical Chemistry, 2nd Year.	Histology Demonstration.
11	Out-Patients, Montreal Gen'l. Hospital.	Out-Patients, Montreal Gen'l. Hospital. Zoology.	Out-Patients, Montreal Gen'l. Hospital.	Out-Patients, Montreal Gen'l. Hospital.	Out-Patients, Montreal Gen'l. Hospital. Zoology.	Practical Physiology, Out-Patients, Montreal Gen'l. Hospital.
P.M. 2	Physiology Examination, 2nd Year.	Physiology, 2nd Year.	Physiology, 2nd Year.	Physiology, 2nd Year.	Prac. Physiology.	
3	Chemistry Examination.	Chemistry.	Chemistry.	Chemistry.	Chemistry.	
4	Materia Medica Examination. Physiology, 1st Year.	Materia Medica, Physiology, 1st Year.	Therapeutics, Physiology, 1st Year.	Materia Medica, Physiology, 1st Year.	Materia Medica, Histology Lectures, 1st Year.	
4 to 6		Practical Histology.		Practical Histology.		
A.M. 10 to 12	Practical Anatomy.	Practical Anatomy.	Practical Anatomy.	Practical Anatomy.	Practical Anatomy.	Practical Anatomy.

N.B.—The Demonstrator's Hours in the Dissecting Room from 10-12 a.m., and from 8-10 p.m. * Until Christmas only.

† Corrections for 1894-95 will be announced at the opening of the session.

TIME TABLE—THIRD AND FOURTH YEARS, FOR THE PAST SESSION (1892-93).*

A.M.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9	Midwifery.	Midwifery.	Gynæcology.	Midwifery.	Gynæcology.	
10	Jurisprudence.	Pathology.	Jurisprudence.		Jurisprudence.	
A.M. 11.15	Medical Clinic, 4th Year.	Medical Clinic, 3rd Year.	Medical Clinic, 3rd and 4th Years.	Clinical Therapeutics.	Medical Clinic, 4th Year.	Medical Clinic, 3rd Year.
1	Surgical Clinic, (3)	Surgical Clinic, (4)		Surgical Clinic, (4)	Surgical Clinic, (3)	Surgical Clinic, (4)
2						
3	Materia Medica.	Materia Medica.	Therapeutics.	Ophthalmic Clinic †	Materia Medica.	
4	Medicine.	Medicine.	Medicine.	Medicine.	Medicine.	
5	Surgery.	Midwifery, 3rd year.	Surgery.	Surgery.	Surgery	

Autopsies are performed at the General Hospital between 12 a. m. and 2 p.m. † 4th year.
* Corrections for 1894-95 will be announced at the opening of the session.

Faculty of Law.

THE PRINCIPAL (Ex-Officio).

N. W. TRENHOLME, Q.C., M.A., D.C.L., Dean, and GALE Professor of Roman and International Law.

Hon. Mr. JUSTICE WURTELE, D.C.L., Professor of the Law of Real Estate.

J. S. ARCHIBALD, Q.C., D.C.L., Professor of Commercial Law.

L. H. DAVIDSON, Q.C., M.A., D.C.L., Professor of Commercial Law.

CHRISTOPHE A. GEOFFRION, Q.C., D.C.L., Professor of the Law of Contracts.

ARCHIBALD McGOUN, M.A., B.C.L., Professor of Legal Bibliography.

THOMAS FORTIN, LL.L., B.C.L., Professor of Civil Procedure and Municipal Law.

W. DEM. MARLER, B.A., B.C.L., Professor of Notarial Law.

Hon. C. J. DOHERTY, D.C.L., Professor of Civil Law.

HARRY ABBOTT, Q.C., B.C.L., Professor of Commercial Law.

EUGENE LAFLEUR, B.A., B.C.L., Professor of Civil Law.

Dean of Faculty.—Professor TRENHOLME.

Secretary and Librarian of the Faculty.—Professor McGOUN.

Corporation Examiners for Degrees.—Professors TRENHOLME and FORTIN.

Matriculation Examiners of the Faculty.—Professors ARCHIBALD and LAFLEUR.

The Faculty of Law feels much satisfaction in being able to announce that the important step, so long and earnestly desired by all friends of the University, of placing the McGill School of Law on such a substantial and permanent basis as to enable it efficiently to perform its part in the great work of legal education in Canada, has been accomplished by the munificent endowment presented to the University by Mr. William C. McDonald. This endowment places the Faculty in a position to offer to those who desire to study the Law, either with a view to its practice as a profession or as a means of culture, or as a qualification for the discharge of the higher duties of citizenship, a comprehensive and complete course of legal study, with the use of library, reading room and other aids which have not heretofore been at the command of the Faculty. The course of study to be pursued, extending over a period of three years, and the instruction to be imparted, while designed so far as possible to qualify professional Students for the practice of their

profession, will also fully recognize the important fact, which, no doubt, was a main inducement for the action of the Faculty's generous benefactor, that upon the character of the Bar depends that of the Bench and of the administration of justice, and to a great extent also the character of the public men and public life of the country; that, in fact, from the ranks of no other profession are so many called to fill high positions of trust and to perform duties, the efficient and upright discharge of which is of vital importance to the community.

In re-organizing the Faculty, under the W. C. McDonald endowment, a number of well-known names have been added to the staff, as shown above, and the courses largely specialized. It was felt, that while professional men, engaged in the active practice of their profession, might be relied upon to deliver regularly a limited number of lectures, on spiritual subjects, they could not be expected to undertake to submit to the serious interference with their business and inevitable interruptions involved in very lengthy courses. And to obviate the difficulties and drawbacks necessarily arising from sole dependence, as heretofore, on professional men in active practice, for attending to the interests and maintaining the efficiency of the Faculty, and to meet a deeply-felt want in this respect, the Dean has been appointed as a salaried officer, whose duty it will be primarily to devote his whole time to the work.

Further, the Professor of Legal Bibliography has been appointed secretary and librarian, and will have supervision of the Library,—comprising at present the law libraries of the late Mr. Griffin, Q.C., of the late Chancellor Day, and of part of the library of the late Mr. Justice McKay, all of which were bequeathed to the University; and also of the law library of the late Mr. Justice Torrance, now the property of the Fraser Institute, of which he was a trustee—the use of which has been generously granted to the Faculty by the present trustees. The above law books will of themselves afford to the law student a library which will generally prove sufficient for his wants, and which will be kept up and added to by the expenditure of a sum annually in the purchase of books. There will also be provided in connection therewith a reading room, in which the leading law magazines and literature of the day will be found.

As a place for the study of Law by professional Students, Montreal affords undoubted advantages, among other reasons, on account of the great variety and extent of the legal business done there, the constant sitting of all the principal courts of the Province, and the large number of first-class law offices open to Students; while for all students, and especially for students of historic and philosophic jurisprudence, no more interesting or attractive legal system exists than that prevailing in this Province, where may be daily seen and studied, not simply theoretically, but in active operation as parts of our law, the three famous systems of jurisprudence,—Roman, French and English,—with additions and modifications introduced by our own legislatures and courts. The imposing features of the Roman Law may be recognized throughout the greater portion of our Civil Code, often combined with or incorporated into that noble system elaborated and perfected by Pothier and other great French jurists, both of the ancient and modern epochs, which is the direct source of most of our Civil Law; while nearly the whole body of English Criminal and Constitutional Law and large portions of English Commercial Law are equally parts of the law of this Province

The importance of the Notarial profession, and of a knowledge of notarial practice and conveyancing, has led to the appointment as a full member of the Faculty of a Professor of Notarial Law, whose course of lectures will be attended by all professional Students.

With a view to extending as far possible the usefulness of the Faculty, the courses of lectures on commercial subjects have been so arranged, that young men engaged in banks or other business houses can attend them without interference with their regular duties. Students of other departments of the University, and, in fact, all who may desire to do so, may attend such particular courses as they may see fit to select. It is hoped that the course delivered will be found beneficial to all students, indeed to all who may desire to know something of the constitution and laws by which they are governed, and of a science which had been characterized by Burke as "the collected reason of ages, combining the principles of original justice with the infinite variety of human concerns."

While the Faculty accepts for matriculation the requirements stated in the Regulations below, it nevertheless strongly recommends

Students intending to study law to take the B.A. course in the Faculty of Arts as a preliminary qualification; and if that be not attainable, as much as possible of the Arts course.

Lectures and Examinations.

The classes in Law will begin in the Faculty Rooms, Fraser Institute, on Monday, the 3rd September, 1894, at 4 p.m.

The Supplemental and Matriculation Examinations will be held in the Faculty Rooms, Fraser Institute, on the same day at 10 a.m.

The lectures will be delivered in the Faculty Rooms in two terms: the first beginning on Monday, 3rd September, 1894, and the second beginning on Monday, 7th January, 1895.

The Examinations will be held in the William Molson Hall, McGill College building, at Christmas, and at the close of the session and as announced below, unless otherwise determined by the Faculty.

The complete course of study in this Faculty extends over three years. Attendance at lectures is required of all students proceeding to the degree of B.C.L.

Professors Fortin and Lafleur will deliver their lectures in French.

Scholarships and Prizes.

Two scholarships, each of one hundred dollars, are offered for competition, the preference being given to Students whose domicile is not in Montreal or vicinity. They will be awarded, after the Sessional Examinations in April, 1895, upon the results of the Examinations of the first year, and will be payable during the second year.

Prizes open to competition by all the Students except the medalist and holders of scholarships will also be given to the Students taking the best standing in each year.

No scholarship or prize shall, however, be awarded to any Student unless a sufficiently high standing, in the estimation of the Faculty, be attained, to merit it.

Classification of Students.

Matriculated Students who do not take the whole course are classed as Partial Students, and are not entitled to proceed to the Degree of B.C.L.

Occasional Students will be received without matriculation for attendance on any particular series of Lectures.

Students who have completed their course of three years, and have passed a satisfactory examination, will be entitled, upon the certificate and recommendation of the Faculty, to the Degree of Bachelor of Civil Law.

COURSE OF STUDY FOR 1894-95.

Roman Law:

1st Year.	
History of Roman Law	
Maine, Ancient Law	
Institutes of Justinian	
Gaius, Commentaries	The Dean.
2nd and 3rd Years.	
Institutes of Justinian	
Gaius, Commentaries	
Maine, Ancient Law	

Criminal Law	The Dean.
Constitutional Law	

Law of Real Estate:

History and nature of various kinds of tenure of real property in the Province and their incidents	Professor Wurtele.

Commercial Law:

Insurance, Fire, Life and Marine ..... Professor Archibald.

Commercial Law:

Agency and Partnership ..... Professor Davidson.

Law of Contracts ..... Professor Geoffrion.

Legal Bibliography and History:

Sources of our Law: Imperial Statutes and English laws in force here; Legislation within the province, classification of authorities French and English	Professor McGoun.

Civil Procedure :

Jurisdiction of the civil courts.....
General Rules of Pleading.....
Code of Procedure..... } Professor FORTIN.

Notarial Law :

Notarial Practice and Conveyancing..... Professor MARLER.

Civil Law :

Law of Successions.....
Forced Licitations..... } Professor DOHERTY.

Commercial Law :

Law of Banking.....
Documents of Title..... } Professor ABBOTT.

Civil Law :

Marriage Covenants..... Professor LAFLEUR.

FACULTY REGULATIONS.

1. Any person desirous of becoming a Matriculated Student may apply to the Secretary, Prof. McGoun, 181 St. James St., for examination and entry in the Register of Matriculation, and shall procure a ticket of Matriculation and tickets of admission to the Lectures for each Session of the Course.

2. The degree of B.A. obtained from any Canadian or other British University; or a certificate of having passed the examination before the Bar for admission to study Law in the Province of Quebec; or the intermediate Examination in the Faculty of Arts in McGill University, shall be accepted in lieu of Examination for Matriculation in this Faculty. For other candidates the Matriculation Examination this year will be in the following subjects:—

Latin.—Virgil, Æneid, Book I.; Cicero, Orations I. and II. against Catiline. Latin Grammar.

French.—De Fivas' "Grammaire des Grammaires;" *Molière, "Le Bourgeois Gentilhomme;" †Translation into French of Macaulay's Essay on Frederick the Great.

Exercises in Composition and Grammatical Analysis, in English and French.

Mathematics.—Arithmetic; Algebra to the end of Simple Equations; Euclid, Books I., II., III.

History.—White's Outline of Universal History (or any equivalent manual); *Green's Short History of the English People; Miles' School History of Canada; † Duruy, Histoire de France.

Literature.—*Collier's Biographical History of English Literature; † Laharpe Cours de Littérature; † Lefranc, Cours de Littérature.

Rhetoric.—Whately's Rhetoric; Blair's Lectures (small edition).

Philosophy.—*Whately's Logic; † Logique de Port Royal; † Cousin, Histoire de la Philosophie; *Stewart's Outline of Moral Philosophy.

N.B.—The works mentioned above preceded by an asterisk are for English Students only. Those preceded by a cross are for French Students only. The remainder are for both English and French.

3. Students in Law shall be known as of the First, Second and Third Years, and shall be so graded by the Faculty. In each year, Students shall take the studies fixed for that year, and those only, unless by special permission of the Faculty.

4. The register of Matriculation shall be closed on the 1st November in each year, and return thereof shall be immediately made by the Dean to the Registrar of the University. Candidates applying thereafter may be admitted on a special examination to be determined by the Faculty; and, if admitted, their names shall be returned in a supplementary list to the Registrar.

5. Persons desirous of entering as Occasional Students shall apply to the Dean of the Faculty for admission as such Students, and shall obtain a ticket or tickets for the class or classes they desire to attend.

6. Students who have attended collegiate courses of legal study in other Universities, for a number of terms or sessions, may be admitted, on the production of certificates, to a like standing in this University, after examination by the Faculty.

7. All Students shall be subject to the following regulations for attendance and conduct:—

(1) A class-book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted, and the said class-book shall be submitted to the Faculty at each monthly meeting; and the Faculty shall, after examination of such class-book, decide which Students shall be deemed to have been sufficiently regular in their attendance to entitle them to proceed to the examination in the respective classes.

(2) Punctual attendance on all the classes proper to his year is required of each Student. Professors will note the attendance immediately on the commencement of their lectures, and will omit the names of Students entering thereafter, unless satisfactory reasons are assigned. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class room, if persisted in after admonition by the Professor, will be reported to the Dean of the Faculty, who may reprimand the Student or report to the Faculty, as he may decide. While in the building, or going to and from it, Students are expected to conduct themselves in

the same orderly manner as in the Class rooms. Any Professor observing improper conduct in the Class rooms, or elsewhere in the building, will admonish the Student, and, if necessary, report him to the Dean.

(3) When Students are reported to the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes or honors, suspend from classes, or report to the Corporation for expulsion.

(4) Any Student injuring the furniture or building will be required to repair the same at his own expense, and will, in addition, be subject to such penalty as the Faculty may see fit to impose.

(5) The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a Session, shall in each case be determined by the Faculty.

(6) All cases of discipline involving the interests of more than one Faculty, or of the University generally, shall be reported to the Principal, or, in his absence, to the Vice-Principal.

8. The College year shall be divided into two terms, the first extending to the Christmas vacation, and the second from the expiration of the Christmas vacation to the end of April following.

The lectures will be delivered between the hours of half-past eight and half-past nine in the morning and four and half past six in the afternoon; and special lectures in the evening; the whole at such hours and in such order as shall be determined by the Faculty. Professors shall have the right to substitute an examination for any such lecture.

9. At the end of each term there shall be a general examination of all the classes, under the superintendence of the Professors, and of such other examiners as may be appointed by the Corporation; which examination shall be conducted by means of printed questions, answered by the Students in writing in the presence of the Examiners. The result shall be reported as early as possible to the Faculty.

After the examinations at the close of the second term, the Faculty shall decide the general standing of the Students, taking into consideration the examinations of both terms, both of which examinations shall be considered the Sessional or Final Examinations for the college year, as the case may be.

10. No Student shall be considered as having kept a Session unless he shall have attended regularly all the courses of Lectures, and shall have passed the Sessional Examinations to the satisfaction of the Faculty in all the classes of his year.

11. The Faculty shall have the power, upon special and sufficient cause shown, to grant a dispensation to any Student from attendance on any particular Course or Courses of Lectures, but no distinction shall in consequence be made between the Examinations of such Students and those of the Students regularly attending Lectures. No Student shall pass the degree of B.C.L. unless he has prepared a Thesis, either in French or English, which shall have been approved by the Faculty.

12. The subject of such Thesis shall be left to the choice of the Student, but it must fall within the range of study of the Faculty, and shall not exceed twenty pages of thirty lines each. Each Student shall, on or before the first day of March, forward such Thesis to the Secretary of the Faculty, marked with the *nom de plume* which he shall adopt, and accompanied with a sealed envelope, bearing the same *nom de plume* on it, and containing inside his name and the subject of his Thesis, and the envelope shall be opened in presence of the Faculty after the final decision shall be given on the respective merits of the several Theses.

13. The Elizabeth Torrance Gold Medal, in the Faculty of Law, shall be awarded to the Student who, being of the Graduating Class, having passed the Final Examinations, and having prepared a Thesis of sufficient merit in the estimation of the Faculty to entitle him to compete, shall take the highest marks in a special Examination for the Medal, which examination shall include the subject of Roman Law.

14. Every Candidate, before receiving the Degree of B.C.L., shall make the following declaration :—

Ego A.B. polliceor, me, pro viribus meis, studiosum fore communis hujus Universitatis boni, operamque daturum ut decus ejus ac dignitatem amplificem, et officiis omnibus ad Baccalaureatus in Jure Civili gradum pertinentibus fungar.

15. The fees in the Faculty are as follows :—

Registration Fee	$ 5 00
Sessional Fee by Ordinary Students	38 00
Graduation Fee, including registration as voter in election of fellows	12 50
Fee for supplemental examination	5 00
Sessional Fee by Partial Students, for each course	3 00
For Partial Students who are students in other departments of the University or affiliated Colleges, taking two or more courses, a single fee of	5 00

Matriculation and Sessional Fees must be paid on or before Nov. 1st ; and if not so paid, the name of the Student shall be removed from the books, but may be re-entered by consent of the Faculty, and on payment of a fine of not less than $3. Students already on the books of the University shall not be required to pay any Matriculation Fee.

16. Partial Students may be admitted into any class on such terms as shall be arranged by the Faculty.

17. The requirements and conditions for obtaining the Degree of D.C.L. in course can be ascertained upon application to the Secretary of the Faculty.

SYLLABUS.

Monday, 3rd September, 1894. Matriculation and Supplemental Examinations. Ordinary Lectures begin.

Saturday, 8th December. Last day for notice to be sent to Secretary of Section of the Bar by candidates at the January Examination for admission to study or to practise Law in the Province of Quebec.

Monday, 7th January, 1895. Lectures, Second Term, begin.

Wednesday, 9th January, 1895. Bar Examinations take place at Montreal.

Tuesday, 26th February. Theses for Degree of B.C.L.

Tuesday, 23rd April. Declaration of results of Examination.

Tuesday, 30th April. Convocation for Degrees in Law.

Monday, 4th June. Last day for notice to be sent to Secretary of Section of the Bar by candidates at the July Examination for admission to study or to Practise Law in the Province of Quebec.

Wednesday, 3rd July, 1895. Bar Examinations take place at Quebec.

EXAMINATIONS.

Dates of Examinations, subject to be changed, if need be, by the Faculty.

Before Christmas :—

Monday, 3rd September, 1894, 10 a.m. Matriculation and Supplemental Examinations—Faculty Rooms, Fraser Institute.

Saturday, 24th November, 1894, 3 to 5 p m. On Preliminary Course on Obligations—The Dean.

Tuesday, 11th December, 1894, 4 to 6 p.m. On Legal History and Bibliography —Prof. McGoun.

Wednesday, 12th December, 1894, 4 to 6 p.m. On Civil Procedure—Prof. Fortin.

Thursday, 13th December, 1894, 4 to 6 p.m. On Constitutional Law—The Dean.

Friday, 14th December, 1894, 4 to 6 p.m. On Commercial Law—Prof. Davidson.

Saturday, 15th December, 1894, 3 to 5 p.m. On Persons—Prof. Lafleur.

After Christmas :—

Saturday, 16th February, 1895, 3 to 5 p.m. Real Estate—Prof. Wurtele.

Saturday, 23rd February, 1895, 3 to 5 p.m. Criminal Law—The Dean.

Saturday, 13th April, 1895, 4 to 6 p.m. On International Law—The Dean.

Monday, 15th April, 1895, 4 to 6 p.m. Commercial Law—Prof. Archibald.

Wednesday, 17th April, 1895, 4 to 6 p.m. On Civil Law (Successions)—Prof. Doherty.

Thursday, 18th April, 1895, 4 to 6 p.m. On Contracts—Prof. Geoffrion.

Friday, 19th April, 1895, 4 to 6 p.m. On Law of Carriers—Prof. Abbott.

Saturday, 20th April, 1895, 3 to 5 p.m. On Notarial Law—Prof. Marler.

FACULTY OF LAW—TIME TABLE, 1894-95.

I. MONDAY, 3rd September, to FRIDAY, 28th September, 4 weeks.

HOURS.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30 to 9.30 a.m.	Prof. McGoun.		Prof. McGoun.		Prof. McGoun.
4 to 5 p.m.	Prof. Fortin.	Prof. Fortin.	Prof. Fortin.	Prof. Fortin.	Prof. Fortin.
5 to 6 p.m.	The Dean.	The Dean.	The Dean.	The Dean.	The Dean.

II. MONDAY, 1st October, to FRIDAY, 2nd November, 5 weeks.

8.30 to 9.30 a.m.	Prof. McGoun.		Prof. McGoun.		Prof. McGoun.
4 to 5 p.m.	The Dean.	Prof. Fortin.	The Dean.	Prof. Fortin.	The Dean.
5 to 6 p.m.	Prof. Lafleur.	Prof. Davidson.	Prof. Lafleur.	Prof. Davidson.	Prof. Lafleur.

III. MONDAY, 5th November, to FRIDAY, 7th December, 5 weeks.

8.30 to 9.30 a.m.					
4 to 5 p.m.	Prof. Fortin.	The Dean.	Prof. Fortin.	The Dean.	Prof. Fortin.
5 to 6 p.m.	Prof. Davidson.	Prof. Lafleur.	Prof. Davidson.	Prof. Lafleur.	Davidson.

IV. MONDAY, 7th January, to FRIDAY, 8th February, 5 weeks.

8.30 to 9.30 a.m.		Prof. Doherty.		Prof. Doherty.	
4 to 5 p.m.	The Dean.	Prof. Archibald.	The Dean.	Prof. Archibald	The Dean.
5 to 6 p.m.	Prof. Geoffrion.	Prof. Wurtele.	Prof. Geoffrion.	Prof. Wurtele.	Prof. Archibald.

V. MONDAY, 11th February, to FRIDAY, 15th March, 5 weeks.

8.30 to 9.30 a.m.		Prof. Doherty.		Prof. Doherty.	
4 to 5 p.m.	The Dean.	The Dean.	The Dean.	The Dean.	The Dean.
5 to 6 p.m.	Prof. Archibald.	Prof. Archibald.	Prof. Abbott.	Prof. Archibald.	Prof. Abbott.

VI. MONDAY, 17th March, to FRIDAY, 12th April, 5 weeks.

8.30 to 9.30 a.m.					
4 to 5 p.m.	The Dean.	Prof. Doherty.	The Dean.	Prof. Doherty.	The Dean.
5 to 6 p.m.	Prof. Marler.	Prof. Abbott.	Prof. Marler.	Prof. Abbott.	Prof. Abbott.

In the Library Room of the Faculty, Fraser Institute Building, when called.

APPENDIX.

The attention of intending Students is called to the following provisions of the Revised Statutes of Quebec and amendments, as bearing on the requirements for the study and practice of Law in the Province:—

ARTICLE 3544 R.S.Q.—Examinations for admission to study and to practise law in the Province of Quebec are held at the time and place determined by the General Council.

The places and dates as at present fixed are

MONTREAL, . Wednesday, 9th Jan., 1895.
QUEBEC, . . Wednesday, 3rd July, 1895.

and alternately at Montreal and Quebec every six months, namely—at Montreal on the second Wednesday of each January, and at Quebec on the first Wednesday of each July.

All information concerning these examinations can be obtained from the General Secretary's Office. The present General Secretary is W. C. Languedoc, Esq., Quebec.

ARTICLE 3546.—Candidates must give notice as prescribed by this article, at least one month before the time fixed for the examination, to the Secretary of the Session in which he resides, or in which he has resided for the last six months.

The present Secretary of the Montreal Section is Mr. D. R. Murphy, New York Life Building, Montreal.

ARTICLE 3503a.—Added by Statute of Quebec, 53 Victoria (1890), Cap. 45, provides that Candidates holding the diploma of Bachelor of Arts, Bachelier-es-Lettres, or Bachelier-es-Science from a Canadian or other British University, is dispensed from the examination for admission to study. Such Candidates are required to give the notice mentioned above.

ARTICLE 3548 R.S.Q. (as altered by by-law of the General Council).—On giving the notice prescribed by Article 3546, the Candidate pays the Secretary a fee of $2, and makes a deposit of $30, for admission to study, or of $70 for admission to practice, which deposit, less $10, is returned in case of his not being admitted.

ARTICLE 3552 (amended 1894, Q. 57 Vic., c. 35).—To be admitted to practice, the Student must be a British subject, and must have studied regularly and without interruption during ordinary office hours, under indentures before a Notary, as Clerk or Student, with a practising Advocate, during Four Years, *dating from the registration of the certificate of admission to study.* This term is reduced to Three years in the case of a Student who has followed a regular law course in a University or College in this Province, and taken a degree in law therein.

REQUIREMENTS FOR DEGREE OF DOCTOR OF CIVIL LAW.

ADOPTED OCTOBER, 1891.

Every Candidate for the Degree of D.C.L. in Course must be a Bachelor of Civil Law of twelve years' standing, and must pass such examination for the Degree of D.C.L. as shall be prescribed by the Faculty of Law. He shall also, at least two months before proceeding to the Degree, deliver to the Faculty twenty-five printed copies of a Thesis or Treatise of his own composition on some subject selected or approved by the Faculty, such Thesis to contain not less than fifty octavo pages of printed matter, and to possess such degree of merit as shall, in the opinion of the Faculty, justify them in recommending him for the degree.

The Candidate shall also pay to the Secretary of the Faculty, annually during the period of twelve years, for the retention of his name on the books of the Faculty, a fee of two dollars, to form part of the Library Fund of the Faculty. Upon cause shown, however, and with the consent of the Faculty, such fees may be paid at one time before the granting of the degree.

The Examination for the Degree of D.C.L. in Course, which shall be open to all who have taken the degree of B.C.S. of this University in the past, as well as to such as may take the degree in future, shall, until changed, be on the following subjects and authors, with the requirement of special proficiency in some one of the groups below indicated. In the groups other than the one selected by the Candidate for special proficiency, a thorough acquaintance with two works of each group shall be sufficient, including in all cases the work first mentioned in each group and the first two works in group third.

1. INTERNATIONAL LAW.

Phillimore, International Law.
Hall, " "

Wharton, Conflict of Laws.
Savigny's International Law, by Guthrie.
Foelix, Droit International Privé.
Brocher, Droit International Privé.
Dicey on Domicile.
Story, Conflict of Laws.
Maine, Lectures on International Law.

2. Roman Law.

Ortolan's Institutes.
Mommsen's History of Rome.
Roby's Introduction to the Digest.
Muirhead's Roman Law.
Mackenzie's Roman Law.
Savigny's Roman Law in the Middle Ages.
Bryce's Holy Roman Empire.
Institutes of Gaius.
Fustel de Coulanges, La Cité Antique.

3. Constitutional History and Law.

Dicey's Law of the Constitution.
Stubbs' Constitutional History of England.
Hearn, Government of England.
Bagehot, English Constitution.
Franqueville, British Government and Parliament.
Gneist, Constitution of England.
Hallam, Constitutional History of England.
May, " " "
Gardiner, " " "
May, Democracy in Europe.
Freeman, Growth of the English Constitution.
Mill, Representative Government.
Bentham, Fragment on Government.
Maine, Popular Government.

4. Constitution of Canada and Works relevant thereto.

Todd. Parliamentary Government in the British Colonies.
Bourinot, Federal Government in Canada.
Doutre, Constitution of Canada.
Cartwright, Cases under the British North America Act.
Lord Durham's Report on British North America.
Lareau, Histoire du Droit Canadien.
Houston's Constitutional Documents of Canada.
Volume O., Statutes of Lower Canada.
Masères' Collection of Quebec Commissions.
Laferrière, Essai sur l'histoire du droit français.
Dilke, Problems of Greater Britain.
Matthews (Jehu), A Colonist on the Colonial Question.
Bryce, American Commonwealth.
Curtis, History of the Constitution of the United States.
Cooley, Principles of Constitutional Law.

5. Criminal Law, Jurisprudence and Political Science.

Stephens, History of the Criminal Law.
Blackstone, Vol. IV.
Harris, Principles of Criminal Law.
Pike, History of Crime.
Holland's Elements of Jurisprudence.
Austin, Lectures, omitting chapters on Utilitarianism.
Lorimer's Institutes.
Amos, Science of Law.
Woolsey, Political Science.
Lieber, Political Ethics.
Freeman, Comparative Politics.
Aristotle's Politics, by Jowett.

Faculty of Comparative Medicine and Veterinary Science.

THE PRINCIPAL (*Ex-officio*).

Professors:

MCEACHRAN (D.), BAKER, MCEACHRAN (C.).

Associate Professors:

GIRDWOOD,	PENHALLOW.
WILKINS,	MILLS.
BLACKADER,	ADAMI.

Dean of the Faculty:—D. MCEACHRAN, D.V.S.
Registrar:—C. MCEACHRAN, D.V.S.

The Sixth Session of the Faculty (being the twenty-ninth of the Montreal Veterinary College) will be opened on Tuesday, the 2nd October, 1894, by an introductory lecture, at 8 p.m., in the lecture-room of the Faculty, No. 6 Union Avenue. The regular courses of lectures will begin on Wednesday, 3rd October, at the hours named in the time table, and will continue till the end of March.

The complete curriculum in this Faculty extends over three years. Graduates of recognized Medical Colleges are allowed to present themselves for examination after regular attendance on one full sessional course; graduates of recognized Agricultural Colleges, in which Veterinary Science constitutes a branch of study, after regular attendance for two full courses.

Allowances will be made to students of Human or Comparative Medicine, or others who can produce certified class tickets for attendance on any of the subjects embraced in the curriculum from any recognized college or university.

Graduates and students who avail themselves of the above privileges will nevertheless be required to pass an examination in the subjects comprised in the three years' course, unless, from satisfactory evidence otherwise produced, the examiners consider it to be unnecessary.

Graduates of recognized Veterinary Colleges, desirous of taking the degree, may do so by attendance on the final subjects for one full session, but will be required to pass the examinations on all the subjects embraced in the curriculum, botany excepted.

Partial and Agricultural students will be received without matriculation for attendance on any particular series of lectures. Such students will not be examined, nor will they be entitled to receive class certificates except as Partial students, nor will such attendance be accepted should the student subsequently wish to become a regular student of the Faculty.

MATRICULATION.

Every student, previous to his admission, must produce a certificate of educational acquirements satisfactory to the Faculty, or submit himself to a matriculation examination in (1) writing, (2) reading aloud, (3) dictation, (4) English grammar, (5) composition, (6) outlines of geography with special reference to North America, (7) arithmetic (including vulgar and decimal fractions).

A. N. Shewan, M.A , will hold the matriculation examination on Saturday, 29th Sept., 9 a.m., at the College, 6 Union Avenue, when all those intending to enter the course should present themselves for examination. Candidates possessing certificates of education or of previous matriculation should produce them for the inspection and approval of the examiner. Graduates of any Faculty in a recognized University or Agricultural College are not required to pass this examination.

No College is recognized unless its students are required to pass a matriculate examination.

NOTE—It is contemplated to add the rudiments of Latin to the requirements for matriculation in the near future.

REGISTRATION AND PAYMENT OF FEES.

The following are the College regulations:

All students desirous of attending the classes shall, at the commencement of each session, enroll their names and residences in the register of the Faculty, and procure from the Registrar a ticket of registration, for which each student shall pay a fee of $5.

The said register shall be closed on the last day of October in each year. The fees are payable to the Registrar and all class tickets will be issued by him, and must be paid in advance (except under special circumstances) at the time of registration.

All students must register, including those who receive free bursaries.

Fees for the whole course are $180, which may be paid in three annual payments of $60 each, which, in all cases, must be paid on entering. Matriculation fee, $5, which is to be paid prior to the examination ; $5 for registration ; and $5

for re-registration, payable at the beginning of each of the following two Sessions, and $20 on receiving the diploma. Students who are allowed time for previous study will be required to pay full fees. Payments must be made in all cases as above.

SCHOLARSHIPS.

The Faculty offers for competition this session (1894-5) two scholarships of fifty dollars each : one for First, and the other for Second year Students. These scholarships will be awarded to the student in each year who has the highest aggregate and who obtains not less than fifty per cent. in any one subject, and an average of seventy-five per cent. of the total number of marks attainable.

STUDENTS OF THE PROVINCE OF QUEBEC.

In consideration of the annual grant, the Council of Agriculture has the privilege of sending thirteen pupils, free of expense, to the whole course ; such students however, pay a fee of $5 for the course in Botany and $5 annually for registration. These Bursaries may be obtained by young men resident in the Province of Quebec, by application made to the Dean of the Faculty in the handwriting of applicant, accompanied by a recommendation from the Agricultural Society of the district in which he resides, provided the Council considers him qualified by education and in other respects for entering the College.

In all cases, except when specially arranged, holders of Bursaries will be required to give a guarantee that they will attend three Sessions ; and failing to do so, they shall be required to pay the fees for the Sessions which they have attended.

GENERAL REGULATIONS.

Students of this Faculty will be graded as of the First, the Second, and the Final year.

In each year students will take the studies fixed for that year only, unless by special permission of the Faculty.

Persons desirous of entering as Partial Students shall apply to the Dean of the Faculty for admission and shall obtain a ticket or tickets for the class or classes they desire to attend.

All Students shall be subject to the following regulations as regards attendance and conduct :—

A class-book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted ; and the said class-book shall be submitted to the Faculty at a meeting to be held between the close of the lectures and the commencement of the examinations ; and the Faculty shall, after examination of such class-book, decide which Students shall be deemed to have been sufficiently regular in their attendance to entitle them to proceed to the examinations in the respective classes.

Punctual attendance on all the classes proper to his year is required of each Student. Absence or tardiness, without sufficient excuse, or inattention or disorder in the class-room, if persisted in after admonition by the Professor, will be reported to the Dean of the Faculty, who may reprimand the Student or report to the Faculty, as he may decide. While in the building, or going to or from it, Students are expected to conduct themselves in the same orderly manner as in the Class-rooms. Any Professor observing improper conduct in the Class-rooms, or elsewhere in the building, will admonish the Student, and, if necessary, report him to the Dean.

When Students are reported to the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes or honors, suspend from classes, or report to the Corporation for expulsion.

Any Student injuring the furniture or building will be required to repair the same at his own expense, and will, in addition, be subject to such penalty as the Faculty may see fit to impose.

All cases of discipline involving the interest of more than one Faculty, or of the University generally, shall be reported to the Principal, or, in his absence, to the Vice-Principal.

The College year shall be divided into two terms, the first extending to the Christmas vacation and the second from the expiration of the Christmas vacation to the 30th March following.

Each lecture shall be of one hour's duration, but the Professors shall have the right to substitute an examination for any such lecture.

At the end of each term there shall be a general examination of all the classes, under the superintendence of the Professors and such other examiners as may be appointed by the Corporation. The results shall be reported as early as possible to the Faculty.

The Students have all the privileges of the McGill Medical Faculty's Laboratories, which are thus described in their annual calendar:—

PHYSIOLOGICAL LABORATORY.

The Physiological Laboratory, which is situated on the ground floor, is supplied with the most modern apparatus for the practical teaching of this most important branch of the medical curriculum. It contains, amongst other valuable instruments: kymographs, various manometers, etc., for demonstrating blood pressure; myographs, rheocords, moist chambers, etc., and various electrical appliances for demonstrating experiments in connection with nerve and muscle; special apparatus for illustrating various points in respiration; apparatus specially suitable for demonstrating the processes of digestion, as well as the chemical composition and nature of the secretions, and the chief constituents of the tissues and nutritive fluids. The laboratory is arranged in such a way as to permit of Students assisting at, and taking part in, these demonstrations. [During the past

session, important additions of apparatus have been made to the Physiological Laboratory.]

CHEMICAL LABORATORY.

The Chemical Laboratory is large, lofty and well lighted, and can accommodate comfortably 70 men at one time. Each Student, when entering on his course, has a numbered table in the Laboratory assigned to him for his use during the session. Each table has its own gas and water fixtures, and is provided with shelves for its corresponding set of reagent-bottles, as well as a drawer and locker containing a modern set of chemical apparatus specially adapted for the work. This apparatus is provided by the Professor of Chemistry, and supplied to each Student without extra charge. The Student is required to pay only for apparatus broken or destroyed.

The laboratory is furnished with a large draught closet for ventilation, sulphuretted hydrogen apparatus, gas and combustion furnaces, etc., giving to the Student unsurpassed advantages for acquiring a sound and practical knowledge of medical chemistry.

PATHOLOGICAL LABORATORY.

In the Pathological Laboratory accommodation will be provided for Students or practitioners who desire to carry on advanced study or private pathological research.

The Laboratory has been entirely rebuilt recently, and is well stocked with the usual apparatus for pathological and bacteriological work.

The demonstrations in Morbid Anatomy will be given in a small laboratory, specially arranged for the work.

The classes in Pathological Histology will be held in the Histological Laboratory.

HISTOLOGICAL LABORATORY.

The Histological Laboratory is a large, well lighted room on the second floor. It is so arranged, that over eighty students can be present at the microscopical demonstrations. For this purpose, it is supplied with thirty-five microscopes, all from the well known makers, Zeiss, Hartnack and Leitz. From the large number of microscopes employed, students will have special facilities in studying and making themselves thoroughly acquainted with the specimens that are subjects of demonstration.

PRACTICAL MICROSCOPY.

This is an entirely optional course, in charge of Prof. Wilkins, assisted by Dr. Gunn. It is intended especially for teaching the technique of Microscopy. Students will be shown how to examine blood, etc., also to cut, stain, and mount

specimens. For this purpose they will have furnished them normal structures, with which they will be able to secure a cabinet of at least 100 specimens, which will be of great benefit when in practice. Reagents and apparatus, except cover-glasses and cabinet cases, provided. Fee, $8.

COURSES OF LECTURES.

BOTANY.*

D. P. Penhallow, B.Sc.

The course in Botany includes General Morphology, Histology, Physiology and Classification. It is designed to give special prominence to Physiology, which will be made comparative whenever practicable. The course is illustrated by the microscope and gas microscope, and by the collections, models and apparatus in the Redpath Museum. Use is also made of the resources for practical instruction in Morphology, now afforded by the Botanic Garden.

ZOOLOGY.*

W. E. Deeks, B.A., M.D.

This course includes a systematic study of the classification of animals, illustrated by Canadian examples and by the collections in the Peter Redpath Museum. It affords suitable preparation for collecting in any department of Canadian Zoology or Palæontology, and as an introduction to Comparative Physiology.

Students in Botany or Zoology will receive tickets to the Peter Redpath Museum and to the Museum of the Natural History Society of Montreal.

It is optional with students to select either the course on Botany or on Zoology

CHEMISTRY.

Gilbert P. Girdwood, M.D.

Inorganic Chemistry is fully treated; a large portion of the course is devoted to Organic Chemistry and its relations to Medicine. The branches of Physics bearing upon or connected with Chemistry also engage the attention of the Class. For experimental illustration, abundant apparatus is possessed by the College.

The Chemical Laboratory will be open to members of the Class to repeat experiments performed during the course, under the superintendence of the Professor or his Assistant.

* Students may take either Botany or Zoology, but must intimate at the beginning of the Session their choice, and adhere to this, except by special permission of the Faculty. Students desiring to attend both subjects in one session may do so by permission of the Faculty.

PHYSIOLOGY.

WESLEY MILLS, M.D.

The purpose of this Course is to make Students thoroughly acquainted, so far as time permits, with modern Physiology, its methods, its deductions, and the basis on which the latter rest. Accordingly, a full course of lectures is given, in which both the Experimental and the Chemical departments of the subject receive attention.

In addition to the use of diagrams, plates, models, etc., every department of the subject is experimentally illustrated. The experiments are free from elaborate *technique*, and many of them are of a kind susceptible of ready imitation by the student.

Laboratory work for Senior Students :—

(1) During the first part of the Session there will be a course on Physiological Chemistry, in which the Student will, under direction, investigate food-stuffs, digestive action, blood, and the more important secretions and excretions, including urine. All the apparatus and material for this course will be provided.

(2) The remainder of the Session will be devoted to the performance of such experiments as are unsuitable for demonstration to a large class in the lecture room, and such as require the use of elaborate methods, apparatus, etc.

HISTOLOGY.

GEO. WILKINS, M.D.

This will consist of a course of ten lectures and twenty-five weekly demonstrations with the microscope. As the demonstrations will be chiefly relied upon for teaching the Microscopic Anatomy of the various structures, the specimens under observation will then be minutely described. Plates and diagrams specially prepared for these lectures will be freely made use of.

COMPARATIVE PATHOLOGY.

J. G. ADAMI, M.D.

The teaching in Pathology in the McGill Medical Faculty includes courses in general and special Pathology, in Bacteriology (held during the Summer Session) and instruction in the performance of Autopsies. These courses—while directed especially towards giving to the Students a due knowledge of the causation and course of disease in man—are necessarily based largely upon the results of observations upon the lower animals, and the greater part of all these causes is applicable equally to conditions obtaining in the domestic animals. There is in addition a practical course of Pathological Histology for Students of Comparative Medicine, and instruction is given upon the performance of Autopsies upon the lower animals.

MEDICINE AND SURGERY.

D. McEachran, F.R.C.V.S.

Students of all years must attend.

The course embraces the principles and practice of Veterinary Medicine, including the diseases of domestic animals, their nature, causes, symptoms and treatment. It necessarily includes Pathology and Pathological Anatomy, with daily clinical demonstrations in the hospital and the yard practice of the College, as well as illustrations from plates, preserved specimens, and fresh material furnished by the Pathologist.

The course on Surgery embraces Surgical Anatomy and Practice of Surgery, and will be illustrated by a large collection of surgical appliances.

The large and varied practice of the College furnishes abundance of cases for demonstration purposes.

Special lectures will be given on Sanitary Science, Quarantine, inspection of meat and milk, and also on the examination of horses for soundness.

ANATOMY.

M. C. Baker, D.V.S.

In this course the Anatomy of the horse is the subject of special study ; while the structural differences of all the domestic animals are carefully explained and illustrated by fresh subjects. There is a very large collection of anatomical models by Dr. Auzoux, of Paris, natural injections and dissections, and a most complete collection of diagrams, including Marshall's complete set, M. Achille Comte's Anatomical and Zoological series, also a large collection of drawings specially prepared for the school by Mr. Scott Leighton, artist, Boston, and Mr. Hawksett, Montreal.

The dissecting room is open at all hours, subjects are easily procured, and either the Professor or Demonstrator will be in attendance to superintend and direct students in practical dissection. The room is furnished with every convenience, is thoroughly lighted, and affords students all that can be reasonably desired.

Students are required to pay for the material necessary for practical anatomy.

Before a student can be allowed to present himself for his pass examination, he must produce tickets certified by the demonstrator that he has dissected two entire subjects, that is, one each session.

MATERIA MEDICA AND THERAPEUTICS.

M. D. Blackader, M.D.

This course comprises a description of the physiological and therapeutic action of all the more important medicines used in Veterinary Practice, with a short

reference to their general properties and principal preparations. It will also include a course in the practical work of compounding and administering medicines in the pharmacy and hospital. There will also be a few experimental demonstrations of the action of some of the more important drugs on animals.

CATTLE PATHOLOGY AND OBSTETRICS.

C. McEachran, D.V.S.

A special course on Cattle Diseases and Veterinary Obstetrics will be delivered, embracing the history of Cattle Plague: their nature, symptoms, pathological anatomy, prophylactic and therapeutic treatment; breeding and general management of breeding animals; diseases incident to gestation and parturition etc.

SPECIAL COURSE ON DOGS.

Professor Wesley Mills will give a special course on Dogs, which will include:—

(1) Lectures on the physical and psychic characteristics of all the leading varieties, illustrated by specimens from his own kennels and other sources, as well as by plates, etc.

(2) The principles of training; the feeding and general management of dogs.

(3) The principles of breeding; the management of brood bitches and the rearing of puppies.

(4) Bench show management and the public judging of dogs.

(5) The rights and duties of dog owners.

In all of the above courses the clinical and pathological aspects of the subjects will be considered, as well as the normal.

THE MUSEUM

contains a large collection of natural and artificial specimens, consisting of skeletons of almost all the domestic animals, numerous specimens of diseased bones, preparations by Dr. Auzonx of all the different organs in the body, natural dissections, colored models, diagrams, etc., etc., all of which are used in illustrating the lectures, and to which the Students have frequent opportunities of referring. Students will also enjoy the privileges of the Museum of the Medical Faculty of McGill University, which is rich in pathological specimens.

THE PHARMACY.

All the medicines used in the practice of the College are compounded by the Students, under the direction of the Professors, from prescriptions for each particular case, and most of them are administered or applied by them. For this purpose they are detailed for certain pharmaceutical duties alternately. By this

means they become familiar with the physical properties, compatibilities, doses, and uses of the medicines, and become expert in administering them to the different patients brought for treatment.

THE PRACTICE.

The Hospital and Daily Clinics, as well as a very extensive out-door practice including most of the largest stables in the city and numerous farms in the vicinity, afford excellent opportunities for clinical observation on horses of all breeds and ages. Owing to the number of cattle kept in the city, and the valuable thoroughbred herds in the neighborhood, advanced students are enabled to see and do considerable cattle practice. The dog practice is the largest in Canada. All canine diseases can be studied clinically, owing to the large number of dogs, brought to the College for medical or surgical treatment.

Senior Students will be appointed to act alternately as dressers in the Hospital, and first and second year men must assist in administering medicines and at operations.

FREE CLINICS.

To afford the Students still more extensive opportunities of clinical observation, an hour a day will be given to free clinics for animals belonging to the poor, which will be duly advertised.

TEXT-BOOKS.*

The following text-books are recommended:—

Anatomy—Chauveau's Comparative Anatomy; Strangeway's Veterinary Anatomy; McFadeyan's Veterinary Anatomy.

Physiology—Huxley's Elementary Lessons; Prof. Mills' Text-Book of Comparative Physiology; Outlines of lectures by the same author.

Histology—Klein's Elements; Schafer's Essentials of Histology.

Botany—Gray's Structural Botany; Bessey's Botany.

Zoology—Dawson's Handbook.

Chemistry—Wurtz's Elementary Chemistry; Armstrong; Remsen's Organic Chemistry.

Medicine and Surgery—William's Principles and Practice of Veterinary Medicine; Fleming's Sanitary Science and Police; William's Surgery; Fleming's Operative Surgery; Robertson's Equine Medicine; Liautard's Operative Veterinary Surgery.

Materia Medica—Dun's Veterinary Medicines; Walley's Veterinary Conspectus; Tuson's Pharmacy.

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*Students are advised not to buy text-books extensively till after consultation with the Professor who teaches the subject.

Cattle Diseases.—Steel's Bovine Pathology; Clatter's Cattle Doctor (Armitage); Fleming's Veterinary Obstetrics.

Canine Diseases.—Prof. Mills' The Dog in Health and in Disease; Hill on the Dog.

Entozoa.—Cobbold's Entozoa of Domestic Animals.

Pathology.—Payne's Pathology.

BOARD AND TRAVELLING EXPENSES.

Board can be obtained at from $15 to $20 per month.

By the kindness of the Railway Companies, certified students of the College will be granted return tickets from Montreal to any part of their lines at greatly reduced rates, the said tickets to hold good from the close of one session to the beginning of the next.

Return tickets will also be granted for the Christmas vacation.

VETERINARY MEDICAL ASSOCIATION.

This Association is for the mutual improvement of its members in all matters pertaining to the profession.

The members are graduates and students of Veterinary Medicine, also graduates and students of Human Medicine.

The meetings are held fortnightly, at which papers are read and discussed, cases reported, etc.

The advantages which students derive from these meetings are very great. Not only do they hear carefully prepared papers on subjects of professional importance, but an opportunity is afforded for practising public speaking which in after-life is often extremely useful. The fees of the Association are expended in the purchase of books for the Library, drugs for experimental purposes, and the prizes awarded for papers read.

The Library is owned by the Association, and is under the control of officers who are elected annually. It contains nearly 600 volumes, embracing works of great antiquity, as well as the modern works on Veterinary Science and collateral subjects, in both the English and French languages, all of which are available for consultation and study by members.

Every student is expected to become a member. The entrance fee is $5, and the yearly subscription $2.50. A Diploma of Honorary Fellowship is conferred on all members who have complied with the regulations of the Association.

ASSOCIATION FOR THE STUDY OF COMPARATIVE PSYCHOLOGY.

This Society is similar in constitution to the Veterinary Medical Association.

Its object is the study of the Psychic Phenomena (intelligence, etc.) of all classes of animals, and the diffusion of sounder views on this subject.

Naturally, it is of great importance in the practice of medicine upon dumb animals, as well as of peculiar scientific interest.

QUALIFICATIONS FOR THE DEGREE.

Candidates for the Final Examination shall furnish testimonials of attendance on lectures on the following subjects :—

Either Botany or Zoology, Histology, } One course of six months, 1st year.

Chemistry, Physiology, Anatomy, } Two courses of six months, 1st and 2nd years.

General Pathology and Demonstrations, one course of six months.

Cattle Diseases and Obstetrics, Practice of Medicine and Surgery, Materia Medica and Therapeutics, } Two courses 2nd and 3rd years.

No one will be permitted to become a candidate for examination who shall not have attended at least one full course of lectures in this Faculty, including all the subjects embraced in the curriculum.

Courses of less length than the above will be received only for the time over which they have extended.

Students, except by special permission of the Faculty, must pursue the subjects of Anatomy, Chemistry, Histology and Botany in their first session, and are advised to take Physiology in addition.

Candidates who fail to pass in not more than two subjects of the first two years may be granted a supplemental examination at the beginning of the following session.

Supplemental examinations will not be granted, except by special permission of the Faculty, and on written application, stating reasons.

Candidates who fail to pass in a subject of which two courses are required, may, at the discretion of the Faculty, be required to attend a third course, and furnish a certificate of attendance thereon.

In addition to the written and oral examinations, candidates must pass a practical clinical test, including examination of horses for soundness, written reports being required ; the clinical reports to include diagnosis, prognosis and treatment.

The following oath or affirmation will be exacted from the candidate before receiving the degree :—

DECLARATION OF GRADUATES IN COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

I, ———, promise and solemnly declare that I will, with my best endeavors, be careful to maintain the interests of this University, and that, to the best of my ability, I will promote its honor and dignity.

EXAMINATIONS.

First Year.—Pass Examinations in Botany or Zoology and Histology (oral), and sessional examinations on the other subjects of the course of the year.

Second Year.—Pass Examinations in Chemistry, Physiology, Histology (written) and Anatomy, in addition to sessional examinations.

Third Year.—Pass Examination in Practice of Medicine and Surgery, General and Special Pathology, Veterinary Obstetrics, Diseases of Cattle and Materia Medica and Therapeutics.

N.B.—Sessional Examinations will be held from time to time during the session, and attendance at these is compulsory. The standing attained at these examinations will be taken into account at pass examinations.

AGE FOR GRADUATION.

Students under seventeen will be received as apprentices, but cannot be entered as regular Students before attaining that age.

Minors may pass the Examinations, but cannot receive the Diploma until they are twenty-one years of age.

HINTS TO STUDENTS.

The Matriculation Examination which you have to undergo is by no means a severe one; and if you are not prepared to pass it, you should begin at once to improve your education.

You had better not commence professional reading till you have become familiar with the fundamental subjects. Practice, except under the guidance of a thoroughly educated practitioner, is more likely to mislead than aid you.

It is advisable that you should arrive in Montreal before the opening day, so as to give you time to procure suitable lodgings. Endeavor by all means to be present at the introductory lectures on all subjects; you cannot miss one lecture without thereby losing valuable preparatory information. Come prepared to procure at once the necessary text-books and note-books. Make your arrangements so as to enable you to devote your entire time and undivided attention to your studies, as the three sessions which the curriculum covers will be found none too long to accomplish the necessary proficiency in the various branches of study required of you.

NOTICE TO GRADUATES.

For the purpose of increasing pathological material for the classess, Graduates are earnestly requested to send any interesting or obscure pathological specimens which may be met with in their practice to the Pathologist at the Veterinary College, No. 6 Union Avenue. The specimens may be sent C.O.D. by express, and will in all cases be acknowledged. A report upon the nature of the specimen will be sent if desired; and the specimens, when of sufficient interest, will be preserved in the Museum with the names of the donors affixed.

ORDER OF LECTURES.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8 to 9 a.m.	Anatomy.	Anatomy.	Anatomy.	Anatomy.	Anatomy.	Practical Anatomy.
9 to 10 a.m.	Practice of Medicine and Surgery.	Practice of Medicine and Surgery.	Practice of Medicine and Surgery.	Practice of Medicine and Surgery.	Practice of Medicine and Surgery.	Clinical Surgery.
10 to 11 a.m.	Cattle Pathology. 2nd and 3rd Year.	Pathology. 2nd and 3rd Year.	Cattle Pathology. 2nd and 3rd Year.	Pathology 3rd Year.	Pathology. 2nd and 3rd Year.	Pathological Demonstration.
11 a.m. to 12 p.m.	Practical Pharmacy and Hospital Practice.	Practical Pharmacy and Hospital Practice.	Practical Pharmacy and Hospital Practice.	Practical Pharmacy and Hospital Practice.	Practical Pharmacy and Hospital Practice.	Botany Demonstration, Practical Physiology.
1 to 2 p.m.	Physiology. 2nd Year.	Physiology. 2nd Year.	Physiology. 2nd Year.	Physiology 2nd Year.	Physiology. Demonstration, 1st and 2nd year men.	Histological Demonstration.
2 to 3 p.m.	* Materia Medica.	Botany.	*Materia Medica.	Botany.		
3 to 4 p.m.	Physiology. 1st Year.	Physiology. 1st Year.	Physiology. 1st Year.	Physiology. 1st Year.	Histology.	
4 to 5 p.m.	Chemistry.	Chemistry. †Materia Medica 5 to 6	Chemistry.	Chemistry. †Materia Medica 5 to 6.	Chemistry.	Examination of Horses for Soundness.
8 to 10 p.m.	Practical Anatomy.	Practical Anatomy.	Practica Anatomy.	Practical Anatomy.	Practical Anatomy.	

* Union Avenue. † McGill.

McGill Normal School.

The McGill Normal School in the city of Montreal is established chiefly for the purpose of training teachers for the Protestant population, or for all religious denominations of the Province of Quebec other than the Roman Catholic. The studies in this school are carried on chiefly in English, but French is also taught.

Government of the School.

The Corporation of McGill University is associated with the Superintendent of Public Instruction in the direction of the McGill Normal School, under the regulations of the Protestant Committee of the Council of Public Instruction, and it is authorized to appoint a standing committee consisting of five members, called "The Normal School Committee," which shall have the general supervision of the affairs of the Normal School. The following members of the Corporation of the University constitute the committee of the Normal School for the Session of 1894-95.

NORMAL SCHOOL COMMITTEE.

The Principal of the University, *Chairman.*

Mr. Samuel Finley,
Mr. George Hague, } Governors of McGill College.

Rev. George Cornish, LL.D.,
J. R. Dougall, M.A., } Fellows of McGill University.

J. W. Brakenridge, B.C.L., *Acting Secretary.*

OFFICERS OF INSTRUCTION.

McGILL NORMAL SCHOOL.

SAMPSON PAUL ROBINS, M.A., LL.D., *Principal and Ordinary Professor of Mathematics, and Lecturer on Art of Teaching.*

ABNER W. KNEELAND, M.A., *Ordinary Professor of English Language and Literature.*

MADAME SOPHIE CORNU, *Professor of French.*

MISS GREEN, *Professor of Drawing.*

MR. R. J. FOWLER, *Instructor in Music.*

LILIAN B. ROBINS, B.A., *Assistant to the Principal, and Instructor in Classics.*

MR. W. H. SMITH, *Instructor in Tonic Sol-Fa.*

MR. JNO. P. STEPHEN, *Instructor in Elocution.*

T. D. REED, M.D., C.M., *Lecturer in Physiology and Hygiene.*

NEVIL N. EVANS, M.A.Sc., *Lecturer in Chemistry.*

MODEL SCHOOLS OF THE McGILL NORMAL SCHOOL.

ORRIN REXFORD, B.Sc., *Head Master of Boys' School.*

MISS MARY J. PEEBLES, *Head Mistress of Girls' School.*

MISS LUCY H. DERICK, *Head Mistress of Primary School.*

ANNOUNCEMENT FOR THE SESSION 1894-95.

This Institution is intended to give a thorough training to teachers, by instruction and training in the Normal School itself, and by practice in the Model Schools; and the arrangements are of such a character as to afford the greatest possible facilities to Students from all parts of the Province.

The thirty-ninth session of this School will commence on the third of September, 1894, and close on thirty-first of May, 1895. The complete course of study extends over four years, and the Students are garded as follows:—

1.—*Elementary School Class.*—Studying for the Elementary School Diploma.

2.—*Model School Class.*—Studying for the Model School Diploma.

3.—*Academy Class.*—Studying for the Academy Diploma.

All the following regulations and privileges apply to male and female students alike.

I. TERMS OF ADMISSION.

(*Extracted from the Regulations of the Protestant Committee of the Council of Public Instruction.*)

Any British subject who produces a certificate of good moral character from the minister of the congregation to which he belongs, and evidence to show that he has completed the sixteenth year of his age, may be admitted to examination for entrance into the Elementary School Class, or, if he has completed his seventeenth year, to the entrance examinations of the Model School Class. (*See Note a.*)

Previous to admission to the Elementary School Class, every pupil-teacher shall undergo an examination as to his sufficient knowledge of reading, writing, the rudiments of grammar in his own language, geography and arithmetic; before admission to the Model School Class he must give proof of his knowledge of the subjects of the previous year. Except as stated below, the examination shall take place before the Principal, or before such other person as he may specially appoint for the purpose. (*See Note b.*)

All candidates who present certificates of having passed in Grade III. Model School Course, and all holders of Elementary School diplomas, shall be exempt from examination for admission to the Elementary School Class. All candidates who show that they have passed at the A.A. examinations, taking two-thirds of the aggregate marks, and have passed in French, and all holders of Model School diplomas, shall be exempt from examination for admission to the Model School Class. Holders of Elementary School diplomas, desiring admission to the Model School Class, shall be examined in Algebra, Geometry and French only.

Candidates shall be admitted to examination for entrance only at the times regularly appointed by the Principal of the school at the beginning of the session. Candidates exempt from examination can only be admitted during the first week of the session, except that teachers who may be actually engaged in teaching at the commencement of the session may, at the discretion of the Principal, be admitted to the Elementary School Class not later than the close of the Christmas vacation. No teacher-in-training admitted later than the 1st of October shall share in that part of the bursary fund which is distributed at Christmas.

In exceptional cases the Principal of the Normal School may admit to the classes on trial persons whose qualifications may be insufficient for entrance. Such persons may be excluded from the School by the Principal whenever he may judge it best so to do; but none shall be permitted to enter or to remain on trial after the semi-sessional examinations.

No candidate is admitted to the Normal School until the provisions of the school laws respecting admission have been fulfilled. (*See Note c.*)

II. PRIVILEGE OF TEACHERS-IN-TRAINING.

All teachers-in-training are entitled to free tuition.

At the close of the semi-sessional examinations, the sum of $400 from the bursary fund will be divided among the forty most successful pupils who do not reside at home with parents or guardians during their attendance at the school. Similarly the sum of $800 will be divided at the close of the sessional examinations. The remainder of the bursary fund will be divided as an allowance for travelling expenses among teachers-in-training residing in the Province of Quebec at a distance of more than ninety miles from Montreal, in a proportion determined by the excess of distance above ninety miles, it being provided that no allowance for travelling expenses shall exceed ten dollars.

All teachers-in-training who pass the semi-sessional examinations in the Normal School with 60 per cent. of the total marks, and who have not fallen below 50 per cent. in any one of the groups of subjects, English, Mathematics, French and Miscellaneous, nor in any one of the subjects required by the Syllabus of Examination prescribed for diplomas of the grade to which they aspire, shall be entitled to continue in their classes after Christmas. Except by the special permission of the Principal, none other shall be entitled to this privilege nor to a share in the Christmas bursary.

All teachers-in-training, who attain the standards defined above at the final examinations of the Normal School, shall be entitled to diplomas of the grade of the class to which they belong, and except with the concurrence of the Principal of the school and the Professor of each subject in which there has been failure, none others shall receive diplomas or share in the bursary fund.

All holders of Elementary School diplomas obtained by reaching

the standards defined above shall be entitled to admission to the Model School Class, none others without the special permission of the Principal. Such holders of Elementary School diplomas as have taken not less than 75 per cent. of the total marks, nor less than 60 per cent. of those in any subject essential to the diploma, according to the Syllabus of Examination of the Protestant Committee of the Council of Public Instruction, shall be entitled to admission among the "selected students" mentioned in the following paragraph, but others may be so admitted by the Principal. (*See Note d.*)

III. STUDENTS FOR THE ACADEMY DIPLOMA.

The Academy Class in the Normal School having been abolished for some years, Academy Diplomas *in course* are no longer given by the McGill Normal School; but under the regulations cited below, Academy Diplomas are granted to holders of Model School Diplomas from the Normal School who become undergraduates of the Universities.

1. The Normal School shall bring up selected students at the end of the Model School year to the examinations for the entrance into the first year of the Faculty of Arts of the Universities. They may be examined either at the examinations for the Associate in Arts in June or at those for the matriculation in autumn, and shall take the full course of study in the first and second years.

2. Such students shall be enrolled in the Normal School as students of the Academy Class, and shall be under the usual pledge to teach for three years. They shall engage in the practice of teaching at such times and in such schools as may be arranged by the Principal from time to time, in consistence with their college work, and shall be under the Principal and the regulations of the Normal School.

3. On report of the colleges which such students may be attending, that they have passed creditably in the Christmas and sessional examinations respectively, they shall be entitled to bursaries, not exceeding thirty dollars per session, in aid of fees and board. Such bursaries may be paid by the Normal School Committee out of any fund available for the purpose.

4. On passing the intermediate, or equivalent, examinations of the Universities, such students will be entitled to receive Academy diplomas, in accordance with the regulations of the Protestant Committee of the Council of Public Instruction of such diplomas.

5. Such students may, with the advice of the Principal, attend classes at McGill or its affiliated colleges, or at Bishop's College, and the Normal School Committee shall make such arrangements as may be possible for free tuition at such colleges.

6. It shall be competent to the Principal of the Normal School to provide any tutorial assistance that may in his judgment be necessary for Academy students. Also, it shall be his duty in the case of optional studies to select for the students those required for the curriculum of the Normal School.

7. It shall be competent to students who have taken Academy diplomas as above to continue for two years longer at the University, or to return thereto, after teaching for a time, in order to take the degree of Bachelor of Arts ; but they shall be held bound to fulfil their engagements to teach, and they shall not be entitled to bursaries. (*See Note e.*)

Holders of Model School Diplomas of the McGill Normal School, who are certified by the Principal of the Normal School to have taken 75 per cent. of the total marks at their final examinations, with not less than 60 per cent. of the marks in Mathematics, Frenc Latin and Greek respectively, will be admitted without further examination to the first year in Arts of the McGill University, but all such Students must make good their standing in the University at the Christmas examinations.

Teachers-in-training, who do not attain the standard defined above, must, in order to enter the University, pass the usual examination for Matriculation.

Exemption from the payment of fees in McGill College for the first year will be granted to the three holders of Model School Diplomas, not being resident in Montreal, who, of all those entering the University on the conditions stated above, have gained the highest aggregate of marks at their final examinations in the Normal School, as certified by the Principal of the Normal School.

Exemption from fees in the second year will be granted to the three students entering from the Normal School, who, with creditable standing in all their examinations at the close of the first year in Arts, have taken the highest aggregate of marks of any Normal School Students of their year.

IV. CONDITIONS OF CONTINUANCE IN THE NORMAL SCHOOL.

Teachers-in-training guilty of drunkenness, of frequenting taverns, of entering disorderly houses or gambling houses, keeping company with disorderly persons, or committing any act of immorality or insubordinatoin, shall be expelled.

Each professor shall have the power of excluding from his lectures any student who may be inattentive to his studies, or guilty of any minor infraction of the regulations, until the matter can be reported to the Principal. (*See Note c.*)

V. ATTENDANCE ON RELIGIOUS INSTRUCTION.

Teachers-in-training will be required to state with what religious denomination they are connected; and a list of the students connected with each denomination shall be furnished to one of the ministers of such denomination resident in Montreal, with the request that he will meet weekly with that portion of the teachers-in-training, or otherwise provide for their religious instruction. Every Thursday after four o'clock will be assigned for this purpose.

In addition to punctual attendance at weekly religious instruction each student will be required to attend public worship at his own church, at least once every Sunday.

VI. BOARDING HOUSES.

1. The teachers-in-training shall state the place of their residence; and those who cannot reside with their parents will be permitted to live in boarding houses, but in such only as shall be specially approved of. No boarding houses having permission to board male teachers-in-training will be permitted to receive female teachers-in-training as boarders, and *vice versa*. (*See Note g.*)

2. They are on no account to be absent from their lodgings after half-past nine o'clock in the evening.

3. They will be allowed to attend such lectures and public meetings only as may be considered by the Principal conducive to their moral and mental improvement.

4. A copy of the regulations shall be sent to all keepers of lodging houses at the beginning of the session.

5. In case of lodgings being chosen by parents or guardians, a written statement of the parent or guardian shall be presented to the Principal.

6. All intended changes of lodgings shall be made known beforehand to the Principal or to one of the professors.

7. Boarding-houses shall be visited monthly by a committee of professors.

8. Special visitations shall be made in case of sickness being reported, either by professors or by ladies connected with the school; and, if necessary, medical attendance shall be procured.

9. Students and lodging house keepers are required to report, as soon as possible, all cases of serious illness and all infractions of rules touching boarding houses.

VII. ACADEMY DIPLOMAS TO GRADUATES.

Granted under the Regulations of the Protestant Committee of the Council of Public Instruction.

Graduates in Arts from any British or Canadian University, who have passed in Latin, Greek and French in the Degree Examinations, or who have taken at least second class standing in these subjects at their Intermediate Examinations, shall be entitled to receive first class Academy diplomas, provided that they have also taken a regular course in the Art of Teaching at the McGill Normal School, or other public training institution outside the Province, approved by the Protestant Committee.

Graduates who have not passed in French, as prescribed above, may, on application, be examined in that subject before the Principal of the McGill Normal School, and, if satisfactory, such examination shall be accepted in lieu of the prescribed standing in French in the University examinations.

To meet the requirements of Graduates and Undergraduates in Arts, who, not having previously taken a Normal School course, desire to receive Academy diplomas of the first class under regula-

tion 54. provision has been made for the delivery of a course of forty lectures on Pedagogy in the Normal School and for practice in teaching in the McGill Model School for forty half-days, open to Graduates in Arts of any British or Canadian University, to Undergraduates of the third year, and, with the permission of the Faculty and the concurrence of the Principal of the Normal School, to those of the fourth year.

Undergraduates will be permitted to teach the forty half-days referred to above, at times extending over the sessions of the Model School corresponding to the third and fourth years of their college course. Graduates will be permitted to teach in the Model Schools at such times as may be agreed on with the Principal.

All persons taking this course of study in the Normal School shall be held to be subject to the regulations of the said school, and to be under the supervision of its Principal while in attendance thereat.

Graduates who have taken the above course of study in Pedagogy, and the first class Academy diploma, may be entered, if so desired by them, in the published lists of the University as holders of such diplomas.

Undergraduates who hold Model School diplomas in course from the McGill Normal School, who take at least second class standing in Latin and Greek in the Intermediate Examination of the Universities, shall be entitled to receive first class Academy diplomas

Teachers who hold (*a*) Academy diplomas granted before the 1st July, 1886, or (*b*) second class Academy diplomas granted under these regulations, and who produce satisfactory proof to the Protestant Committee that they have taught successfully for at least ten years, shall, when recommended by the Committee, be entitled to receive first class Academy diplomas.

Any candidate who presents to the Principal of the McGill Normal School, (*a*) the requisite certificates of age and of good moral character, according to Form No. 1 below, and (*b*) satisfactory certificates that he has complied with either of the foregoing regulations, shall be recommended by him to the Superintendent of Public Instruction for an Academy diploma, of the class to which he is entitled under these regulations.

FORM OF CERTIFICATE OF CHARACTER TO BE SUBMITTED BY CANDIDATES FOR ACADEMY DIPLOMAS.

"This is to certify that I, the undersigned, have personally known and had opportunity of observing ..... for the ..... last past; that during all such time *his* life and conduct have been without reproach, and I affirm that I believe *him* to be an upright, conscientious, and strictly sober *man*."

This certificate must be signed by the Minister of the Congregation to which the Candidate belongs, and by two School Commissioners, or Trustees, or Visitors.

VIII. NOTES ON THE PRECEDING REGULATIONS.

Chiefly extracted from the By-Laws of the McGill Normal School.

(*a*) On application to the Principal of the School, candidates for admission will be furnished with forms of application, containing the required forms of certificate of good character and of agreement to teach for three years in some Public School in the Province of Quebec.

(*b*) Teachers-in-training admitted to the Elementary School class at the beginning of a session must be able to parse correctly a simple English sentence; to write a neat dictation from any school reader, with no more than five per cent. of mistakes in spelling, in the use of capitals, and in the division of words into syllables; to give the names and state the positions of the continents, of the oceans, of the greater islands, peninsulas, capes, mountains, gulfs, bays, straits, lakes, rivers, and the chief political divisions and most important cities of the world; and to work correctly examples in the simple rules of arithmetic and in fractions.

(*c*) Teachers-in-training are expected to give their whole time and attention to the work of the school, and are not permitted to engage in any other course of study or business during the session of the school.

There shall be no intercourse between male and female teachers-in-training while in school or when going to or returning from it. Teachers of one sex are strictly prohibited from visiting those of the other.

Teachers in-training who leave the Normal School in the middle of a session are expected to assign to the Principal satisfactory reasons, accompanied, in case of failure of health, by medical certificates.

(*d*) The J. C. Wilson prize of forty dollars and a book, annually chosen by the donor, shall be given to that teacher in-training of the Elementary School class who passes for a diploma, and takes the highest aggregate of marks at the final examination of the year.

The Prince of Wales' medal and prize shall be given to that teacher-in-training of the Model School class who passes for a diploma, and takes the highest aggregate of marks at the final examination of the year.

(*e*) In order to be recognized as teachers-in-training for the Academy diploma Students who have fulfilled the conditions stated in the regulations of the Protestant Committee of the Council of Public Instruction must apply at the beginning of each collegiate year to the Principal of the Normal School for enrolment, and for certificates of enrolment to be presented to the Dean of the Faculty of Arts. Having entered college, they must report to the Principal of the Normal School from time to time, as he may require, and must furnish him with certificates of having successfully passed their several examinations, without which certificates, signed by the Dean of the Faculty or his representative, no bursaries shall be paid. It is held by the Normal School that no student who has passed lower than the second class in any two of the subjects :—Mathematics, Latin, Greek and French, or who has failed in any one of these subjects, has passed "creditably" at any college examination.

(*f*) The date of the examination of graduates in Arts for Academy diplomas shall be the 20th day of May, or the school day next succeeding that date ; the hours shall be from 10 a.m. to 12 noon.

(*g*) No boarding house is attached to the institution, but every care will be taken to ensure the comfort and good conduct of the Students in private boarding houses approved by the Principal, who will furnish lists to applicants for admission. Board can be obtained at from $12 to $16 per month.

IX. COURSE OF STUDY.

N.B. —The subjoined Course of Study has been designed, and all instruction in it is given with express reference to the work of teaching.

1. ELEMENTARY SCHOOL CLASS, STUDYING FOR THE ELEMENTARY SCHOOL DIPLOMA.

With the view of accommodating teachers actually in charge of schools at the commencement of the Session, and whose previous education may enable them to enter at a more advanced period, the course of study in this class is divided into terms as follows :—

FIRST TERM, from September 1st to December 3rd.

(*Entrance Examination as stated above.*)

English.—The structure of sentences. Orthography and orthoepy. Penmanship. The study of Milton's L'Allegro, and the Sermon on the Mount, Matt. V, VI and VII.

Geography.—General view of continents and oceans. North and South America. Eléments de Géographie moderne.

History.—Outline of general history. Histoire du Canada, en français.

Arithmetic.—Simple and compound rules.

Algebra.—The elementary rules.

Geometry.—Elementary notions, with Mensuration.

French.—Darcy's Principes de Grammaire Francaise to page 50, with verbs of first conjugation. Méthode naturelle.

Botany.—High School Botany, Spotten.

Chemistry.—Lectures.

Reading and Elocution.

Drawing.—Elements, simple outlines and map drawing.

Music.—Vocal music with part songs. Junior Certificate of Tonic Sol-Fa College.

Art of Teaching.—Lectures on school organization and discipline, and on methods of teaching particular subjects.

SECOND TERM, January 6th to end of Session.

(*No pupils will be received after the commencement of this term. Those who enter must pass the examination of the class in the work detailed above.*)

English.—Structure of words and sentences. Etymology, derivation and syntax. Study of Macaulay's Essay on Milton and of Goldsmith's Deserted Village.

Geography.—Contour, elevations, river systems, political divisions and chief cities of the Old World.

History.—Sacred. Histoire du Canada continuée.

Arithmetic.—Fractions, Decimals, Proportion, Interest, Properties of Numbers.

Book-keeping.—Single Entry.

Algebra.—Simple equations of one unknown quantity, with problems.

Geometry.—First book of Euclid, with deductions.

Art of Teaching.—Lectures continued.

French.—Principes de Grammaire Francaise, page 100, with verbs regular and irregular. Méthode naturelle.

Botany.—High School Botany, Spotten.

Physiology and Hygiene.—Lectures.

Reading and Elocution.

Drawing.—Freehand drawing from the solid, and elements of perspective.

Music.—Elements of vocal music and part songs. Elementary Certificate of Tonic Sol-Fa College.

Practice in Teaching in the McGill Model Schools, as directed by the Principal.

Religious Instruction will be given throughout the Session.

In addition to the text-books named above, each Student of the Elementary School Class must be provided with an Atlas of recent date, an Arithmetic, an Algebra and a Euclid.

2. MODEL SCHOOL CLASS, STUDYING FOR THE MODEL SCHOOL DIPLOMA.

Students entering the School in this second year must have passed a satisfactory examination in the subjects of the Elementary School Class. The Class will pursue its studies throughout the Session, without division into terms.

English.—Principles of grammar and composition. Style. History of the English Language. Study of Shakespeare's Tempest, Scott's Lady of the Lake, Tennyson's Lotus Eaters.

Geography.—Mathematical and physical. Use of the globes.

History.—Rome, England.

Art of Teaching.—Lectures on school organization and discipline, and on methods of teaching particular subjects.

Arithmetic.—Commercial arithmetic. Logarithms.

Book-keeping.—Double entry.

Algebra.—Equations of more than one unknown quantity, and quadratics.

Geometry.—Second, third and fourth books of Euclid, with application to mensuration.

Object Lessons.

Latin.—Grammar, Cæsar, Gallic War, Book I.

French.—Translation from French into English, and from English into French. Darey's Principes de Grammaire. Eléments de Littérature française, Lecture française, Méthode Berlitz, Histoire de France.

Agricultural Science.—Principles, especially chemical and botanical, and application to Canadian agriculture.

Elocution.

Drawing.—Elements of perspective, drawing from the cast and map drawing.

Music.—Instrumental music, part songs and rudiments of harmony. Intermediate Certificate of Tonic Sol-Fa College.

Practice in Teaching.—In the McGill Model Schools, as directed by the Principal.

Religious Instruction throughout the Session.

Such Students as, from their conspicuous ability and preparation, may be selected to enter the Academy Class of the Normal School, will, in addition to the work given above, read Xenophon, Anabasis, Book I., and Virgil, Æneid, Book I., with special attention to Greek and Latin Grammar.

Other Students of exceptional ability may, with the consent of the Principal and the Professors of the several subjects, choose one of the following courses of extra study:—

(*a*) Mathematics: Trigonometry.

(*b*) Old English.

(*c*) French: classiques françaises, composition et grammaire.

(*d*) Drawing: water-color.

(*e*) Music: violin.

In addition to the text-books named above, each Student of the Model School Class must be provided with an Arithmetic, an Algebra, a Euclid, and Dawson's Scientific Agriculture.

3. ACADEMY CLASS, STUDYING FOR THE ACADEMY DIPLOMA.

Will follow two years the course of McGill University and its affiliated colleges, or that of Bishop's College, Lennoxville, being enrolled on the books of the Normal School, and receiving a bursary from the Normal School, not exceeding $30 per annum, and such tutorial assistance as may be deemed necessary. Such Students must take in their courses such options only as are approved by the Principal of the Normal School.

The course for the current year in McGill College, for first year Students, is :—

Greek.—Homer, Iliad, Book XXII. Xenophon, Hellenics, Book I. Studies in History and Literature.

Latin.—Cicero, De Amicitia. Virgil, Æneid, Bks. II. and III.—Translation at sight. Studies in History and Literature. Latin Prose Composition.

Mathematics.—Arithmetic. Euclid, six books. Algebra to end of Quadratic Equations. Plane Trigonometry, in part.

English Language and Literature.—First term. English Composition, one lecture a week; English Literature, two lectures a week.

Second term.—Milton's Comus, one lecture a week. English Literature, in continuation of previous course, two lectures a week. The whole course will present an outline of English Literature from the Anglo-Saxon period to the Elizabethan inclusive.

The course for second year Students is :—

Greek.—Plato, Apology. Æschylus, Prometheus Vinctus. History of Greece.

Latin.—Horace, Epistles, Bk. I., 1, 2 and 6. Livy, Bk. XXI. Translation at sight, and Latin Prose Composition.

Mathematics.—Arithmetic, Euclid, Algebra and Trigonometry as before. Logarithms. Plane Trigonometry, including solution of triangles and applications.

Mathematical Physics.—Mechanics, one lecture a week.

English Literature.—A period of English Literature and one play of Shakspere. During the session of 1894–95: The leading poets of the nineteenth century. Shakspere, A Midsummer Night's Dream. Tennyson, Gareth and Lynette.

Psychology and Logic.—First Term, Elementary Psychology (*Text-Book:* Murray's Handbook of Psychology, book I). Second Term, Logic (*Text-Book:*—Jevon's Elementary Lessons in Logic).

French.—Ponsard, l'Honneur et l'Argent. Racine, Esther. Contanseau, Précis de Littérature Française depuis son origine jusqu'à la fin du XVIIIe siècle. Translation into French :—Dr. Johnson, Rasselas. Dictation. Parsing. Colloquial exercises.

The course in Bishop's College for the current year is :—

Greek.—Euripides, Hippolytus; Xenophon, Memorabilia III.

Latin.—Horace, Odes II; Cicero, pro Roscio.

English.—Rhetoric and Grammatical Analysis, with a course of Lectures on English Literature.

History.—Greek and Roman.

French.—Translation, Grammar and Composition.

Mathematics.—Euclid, Books I., II., III., IV., VI. and XI. Algebra to Progressions. Arithmetic.

Physics.—Balfour Stewart's Elementary.

SYLLABUS OF LECTURES ON PEDAGOGY.

(Open to Graduates and Undergraduates.)

The Legal Position of the Teacher.

1. The organization of Public Instruction in Quebec. 2. The relation of the teacher to the Department of Public Instruction and to the Protestant Committee of the Council of Public Instruction. 3. The relation of the teacher to school commissioners and parents. 4. The relation of the teacher to pupils. 5. The teacher as a member of a profession.

Discipline.

6. Discipline as a means of immediate pleasure to pupils. 7. Discipline as tending to school success. 8. Discipline as a preparation for life. 9. Discipline developing character. 10. Discipline enforced by authority.

Instruction in Special Subjects.

11. English reading, writing, grammar. 12. Literature, composition. 13. French. 14. The classics. 15. Number; arithmetic and algebra. 16. Form; geometry. Number and form; trigonometry and mensuration. 17. Geography and history. 18. Botany and chemistry. 19. Drawing and music. 20. The acquisition of general knowledge.

Physical Development.

21. Health. 22. Growth. 23. The training of the eye. 24. The training of the ear. 25. The training of the hand.

Mental Development.

26. The training of the analytic faculty. 27. Observation and experiment. 28. The training of the synthetic faculty. 29. Understanding. 30. Judgment and reason. 31. Invention. 32. Imagination. 33. Memory of sensations. 34. Memory of conception. 35. Verbal memory.

MORAL DEVELOPMENT.

36. Training in truthfulness. 37. In justice and purity. 38. In philanthropy and patriotism. 39. In earnestness. 40. In good manners.

MODEL SCHOOLS OF THE McGILL NORMAL SCHOOL.

Boys' School—Orrin Rexford, B.Sc., *Head Master.*

Elizabeth Reid,
Emma M. Williams, } *Assistants.*

Girls' School.—Mary J. Peebles, *Head Mistress.*

Selina F. Sloan,
Ethel Stuart,
Gertrude Blackett, } *Assistants.*

Primary School—Lucy H. Derick, *Head Mistress.*

Annie L. Woodington,
Clara L. Douglas, } *Assistants.*

Louise Derick, *Kindergarsen.*

These Schools can accommodate about 400 pupils, are supplied with the best furniture and apparatus, and conducted on the most modern methods of teaching. They receive pupils from the age of four and upwards, and give a thorough English education. Fees : Boys' and Girls' Model Schools $1.00 to $1.50 per month ; Primary School and Kindergarten, 75c. ; payable monthly in advance.

University School Examinations.

1895.

FOR CERTIFICATES OF THE UNIVERSITIES AND THE TITLE OF ASSOCIATES IN ARTS.

HELD UNDER THE SUPERINTENDENCE OF McGILL UNIVERSITY, MONTREAL, AND THE UNIVERSITY OF BISHOP'S COLLEGE, LENNOXVILLE; AND RECOGNIZED BY THE PROTESTANT COMMITTEE OF THE COUNCIL OF PUBLIC INSTRUCTION.

These Examinations are held in Montreal and at Lennoxville; and local centres may be appointed elsewhere on application to the Principal of either University, accompanied with the names of satisfactory Deputy Examiners, and guarantee for the payment of necessary expenses.

The Examinations are open to Boys or Girls from any Canadian school.

PART I.—ORDINARY A.A.

SUBJECTS OF EXAMINATION.

I. PRELIMINARY SUBJECTS.

Writing.

English Dictation.

English Grammar, including Easy Analysis.

Arithmetic (all the ordinary rules, including Square Root and a knowledge of the Metric System).

Geography (acquaintance with the maps of each of the four continents, and of British North America).

British History and *Canadian History.*

*New Testament History** (Gospels and Acts, as in Maclear).

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*Candidates will be exempted from examination in this subject only if their parents or guardians make written objection thereto. In such case an alternative subject may be required in 1895 and thereafter, particulars of which may be had on application to the Secretary.

II. Optional Subjects.

Section 1.—Languages.

Latin :—

* Caesar.—Bell. Gall., Bk. I. Virgil.—Aeneid, Bk. I. Latin Grammar and Prose Composition (Collar's Practical Latin Composition, Part III, Book I., or an equivalent). Translation at sight from easier Latin authors.	200	marks

Greek :—

Xenophon.—Anabasis, Bk. I. Homer.—Iliad, Bk. IV. Greek Grammar.	200	do

French :—

Grammar and Dictation. Darey's Lectures Françaises (selected extracts). Re-translation, English into French.	100	do

German :—

Grammar. Adler's Reader, Sections I. and II. Translation from German into English.	100	do

Section 2.—Mathematics.

Geometry :—

Euclid, I., II., III, with easy Deductions.....	100	do

Algebra :—

Elementary Rules, Involution, Evolution, Fractions, Indices, Surds, Simple and Quadratic Equations of one or more unknown quantities.	100	do

Plane Trigonometry :—

(As in Hamblin-Smith, pp. 1-100, omitting Ch. XI).	100	do

Section 3.—English.

The English Language :—

Meiklejohn's English Language, Parts I., II., III. Trench's Study of Words.	100	do

* In 1896 Bk. II. of Caesar, Bell. Gall., may also be required.

English Literature:—

Meiklejohn's English Language, Pt. IV. Shakspere, Julius Caesar. Scott's Lady of the Lake.	100	do
History.—(as in Primers of Greece and Rome, and Collier's Great Events)	100	marks
Geography.—Physical, Political and Commercial	100	do

Section 4.—Natural and Physical Sciences, etc.

Zoology (as in Nicholson's Introductory Text-Book)	100	do
*Botany** (as in Spotton's High School Botany, with Penhallow's Guide to the Collection of Plants, and Blanks for Plant Descriptions†)	100	do
Chemistry (as in Remsen's Elements of Chemistry, pp. 1 to 160)	100	do
Physiology and *Hygiene* (as in Cutter's Intermediate)	100	do
Physics (as in Gage and Fessenden's High School Physics, Chapters I., II., III.)	100	do
Geometrical and Freehand Drawing	100	do

Geometrical.—Vere Foster R^1 and R^2, also problems 119 to 129 of R^3.

Freehand.—Rules of Perspective, Drawing from the object (as in the Dominion Freehand Drawing books, numbers 1 to 5, inclusive).

REGULATIONS.

1. To obtain the Certificate of Associate in Arts, Candidates must pass in all the Preliminary subjects, and also in any six of the Optional subjects, provided that the six include one subject at least from each of the four Sections.

2. In addition to the six Optional subjects selected for passing, Candidates may take other Optional subjects, but the total possible number of marks obtainable in all the Optional subjects chosen must not exceed 1000.

3. Candidates will not be considered as having passed in any subject, unless they have obtained at least 40 per cent. of the total number of marks obtainable in that subject.‡

* In connection with the Botany examination, marks will be given for collections of mounted specimens made in accordance with Penhallow's Guide to the Collection of Plants. The Head Teacher of each school will forward with the answers a specimen from each pupil's collection, and also (on a furnished form) a detailed statement as to the collections made. Not more than 50 specimens will be expected to constitute a collection, and marks may be allowed *pro rata* for fewer.

† These Blanks may be obtained from booksellers in Montreal or elsewhere.

‡ When *two or more books or subjects are prescribed for one examination it is necessary to pass in each.* Candidates will not be allowed to pass in the Preliminary Grammar, unless they show a satisfactory knowledge of Syntax (Parsing, Analysis, and questions connected therewith). In Classics, at least one-third of the marks allotted to grammar must be obtained.

4. The total number of marks gained by every Candidate in the Optional subjects shall be added up, and the Candidates arranged in order of merit in a printed list at the close of the Examination, those who are over 18 years of age on the first day of June being in a separate list. The marks in any subject shall not be counted if the Candidate has obtained less than 40 per cent. in that subject.

5. Candidates who obtain at least 75 per cent. of the marks in any Optional subject shall be considered as having answered creditably in that subject, and special mention of the same will be made in the Associate in Arts Certificate.

6. Candidates who pass in the subjects of the University Matriculation Examinations may, without further examination, enter the Faculties of Arts and Applied Science. (See Note 2 *infra.*)

7. Candidates who fail, or who may be prevented by illness from completing their examination, may come up at the next examination without extra fee.

8. Candidates who pass in all the Preliminary subjects may, at any subsequent examination, take the Optional subjects only, and without extra fee.

9. The Head Master or Mistress of each school must certify to the character and ages of the pupils sent up for examination.

10. The examinations will begin on Monday, June 3rd, at 9 a.m.

11. Lists of the names, ages, and Optional subjects to be taken by the Candidates, together with a fee of $4 for each Candidate, must be transmitted to the Secretary, McGill University, Montreal, on or before May 1st. (Blank forms and copies of the regulations will be furnished on application.)

Extracts from Darey's Lectures Françaises, for the examination of 1895.

Extracts beginning on pp. 10, 13, 15, 20, 32, 33, 37, 42, 47, 51, 56, 63, 68, 74, 76, 85, 87, 92, 94, 99, 103, 110, 118, 125, 129, 133, 144, 149, 151, 156, 158, 162, 166, 169, 176, 179, 182, 196, 215.

NOTE 1.—No fees will be exacted for the examination of pupils of Academies under the control of the Protestant Committee; but in order to obtain the certificate from the Universities, the prescribed fee, viz., $4, must be paid to the Secretary of the University Examiners.

Candidates who pass Grade II of the Academy Course of Study will be exempted from the Preliminary Subjects of the A.A. Examination.

The answers must be written in the answer books, specially made for the purpose under the direction of the Board of Examiners.

The complete regulations of the Protestant Committee of the Council of Public Instruction with reference to these examinations may be obtained on application to the English Secretary, Department of Public Instruction, Quebec.

NOTE 2.—MATRICULATION SUBJECTS REFERRED TO IN REG. 6.

In Arts.—Greek, Latin, Geometry, Algebra, Arithmetic, English Dictation, English Grammar, British History. (Women may substitute French for Greek.)

In Applied Science.—Geometry (Euclid, Bks. I. to IV., VI., and definitions of Bk. V.), Algebra, Trigonometry, Arithmetic, English Dictation, English Grammar, British History.

After entrance in Arts or Applied Science, French or German must be studied. In the former subject an entrance examination is required, but may be passed either in June or in September; Candidates who are unable to pass must study German after entrance. Women who omit Greek must pass the entrance examination in French, and afterwards study both French and German. (In 1895 and afterwards, women must pass in Greek or German.)

[Matriculation Examinations are also held at the opening of the University Session in September. See Calendars of the Universities.]

PART II.—ADVANCED A.A.

SUBJECTS OF EXAMINATION.

I. Preliminary Subjects.

As under Part I.

II. Optional Subjects.

Section 1.—Languages.

Latin :—

Virgil.—Aeneid, I.
Cicero.—In Catilinam, I. and II.
Grammar, Prose Composition (Collar's Practical Latin Composition, Parts III. and IV.), and Translation at sight from Caesar and Nepos.

Greek :—

Xenophon.—Anabasis, I. and II.
Homer.—Iliad, IV., and Odyssey, VII.
Grammar and Prose Composition (Abbott's Arnold's Greek Prose Composition, Exercises 1 to 25).

French :—

Lamartine, Jeanne d'Arc.
Molière, Le Bourgeois Gentilhomme.
Translation at sight from French into English, and from English into French.
Grammar and Dictation.

German :—

Lessing, Emilia Galotti.
Schiller, Der Kampf mit dem Drachen.
Grammar and translation from English into German.

Section 2.—Mathematics

Geometry:—

Euclid, Bks. I. to IV., Defns. of Bk. V., Bk. VI.

Algebra:—

To the end of Progressions.

Trigonometry:—

As in Hamblin Smith (the whole).

Section 3.—English.

The English Language:—

Lounsbury's History of the English Language.
Mason's English Grammar.
A Composition.

English Literature:—

Meiklejohn's English Language, Pt. IV.
The Elizabethan Period (Morley's First Sketch).
Milton's Paradise Lost, Bks. I. and II.

History:—

Grecian History.—The Persian and Peloponnesian Wars.
Roman History.—From the Wars of Marius and Sulla to the death of Tiberius.
English History.—The Reformation and Puritan England, as in Green's Short History.

Section 4.—Natural and Physical Sciences, etc.

Botany.—Gray's Text-Book.

General Morphology and Classification, Determination of Canadian Species, exclusive of Thallophytes. Distribution of Orders represented in Canada.

Credit will be given for collections of plants as under Part I.

Chemistry.—Inorganic, as in Remsen's Elements.

Also, an examination in Practical Work (to be held only in Montreal and at Lennoxville).

Physics.—As in Gage and Fessenden's High School Physics.

Also, an examination in Practical Work (to be held only in Montreal and at Lennoxville).

Drawing.—Orthographic Projection, including Simple Penetrations, Developments and Sections, as in Davidson's Orthographic Projection.

REGULATIONS.

The Regulations of Part I., with the following modifications and additions, will apply to the advanced subjects :—

1. Candidates who pass in six of the advanced subjects (including one at least from each of the four Sections) will receive an Advanced A.A. certificate. The number of marks given to each subject will be the same as in Part I., and additional advanced subjects may be taken as in Reg. 2, Part I.

2. Candidates who fail in one or more of the subjects required for the advanced A.A. may, on the recommendation of the Examiners, be given an ordinary A.A. certificate.

3. The examinations in the advanced subjects will be held at the same time and in the same manner as those in the ordinary subjects. They will be open to all who have already passed in the preliminary subjects, whether they have taken the ordinary A.A. or not. The preliminary subjects must be taken either one or two years before the advanced subjects.

4. Candidates who pass the advanced examinations in Greek, Latin, Geometry, Algebra, and English Language* shall be considered as having passed the Higher Matriculation Examination of the First Year in Arts, McGill University.

5. Candidates must, before May 1st, give notice of intention to present themselves for the examination, specifying the optional subjects in which they wish to be examined.

6. The ordinary fee of $4.00 must be paid before taking the preliminary subjects, and an additional fee of $10 at the time of making application for the advanced examinations.† A Candidate who fails to pass the Advanced A.A. Examination shall be required to pay a fee of $5 for every subsequent Advanced A.A. Examination at which he may present himself.

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*French as in Part I., Note 2.

† Candidates from Academies under the control of the Protestant Committee of the Council of Public Instruction are exempt from the former fee, but not from the latter.

LIST

OF

SUCCESSFUL CANDIDATES

STANDING IN EXAMINATIONS, 1894.

ADVANCED ASSOCIATES IN ARTS.

No.		Marks.
2.	David Walter Munn (Quebec High School),	759
1.	James Norris (Montreal Collegiate Institute),	707

ASSOCIATES IN ARTS.

I. Under 18 years of age.

No.		Marks.
77.	Kate Elizabeth Paterson (Miss Symmers' and Miss Smith's School, Montreal),	853
66.	Robt. Childs Paterson (Collegiate Institute, Montreal),	838
96.	Muriel B. Carr (Girls' High School, St. John, N.B.),	830
167.	William A. Gardner (Huntingdon Academy),	786
69.	Arnold Wainwright (Collegiate Institute, Montreal),	777
93.	Ethel M. Seifert (Girls' High School, Quebec),	765
30.	Abraham Vineberg (High School, Montreal),	754
173.	Archibald H. McLaren (Huntingdon Academy),	737
3.	Percy Butler (High School, Montreal),	731
13.	Thomas Jenkins (High School, Montreal),	728
38.	Charlotte Houston (Girls' High School, Montreal),	726
29.	Leonard Thomas (High School, Montreal),	723
70.	Angus T. W. Davis (Abingdon School, Montreal),	710
136.	Daisy Brodie (Cote St. Antoine Academy),	708
75.	Beatrice Williamson (Trafalgar Institute, Montreal),	707
160.	Mary L. Stimpson (Granby Academy),	701
34.	Gertrude W. Brandt (Girls' High School, Montreal),	699
78.	Lucy E. Potter (Miss Symmers' and Miss Smith's School, Montreal),	697
6.	John W. Costigan (High School, Montreal),	695
63.	John H. Evans (Collegiate Institute, Montreal),	684
236.	Norman H. Slack (Waterloo Academy),	680
26.	Moses Ship (High School, Montreal),	679
121.	James E. Thompson (Coaticook Academy),	674

No.		Marks.
8.	James H. Davidson, (High School, Montreal),	
101.	Maud Gibson (Girls' High School, St. John, N.B.), } equal,	667
106.	Laura Parks (Girls' High School, St. John, N.B.),	
14.	John M. Leney (High School, Montreal),	661
56.	John Campbell (Collegiate Institute, Montreal), } equal,	648
122.	Elizabeth J. Church (Compton Ladies' College),	
166.	Wilhelmina Fortune (Huntingdon Academy), } equal,	647
224.	Emily Anderson (Sutton Academy),	
73.	Frances Cameron (Trafalgar Institute, Montreal),	646
186.	Minnie I. Gordon (Lachute Academy), } equal,	643
210.	Edson G. Place (Stanstead Wesleyan College),	
31.	Charles A. Waterous (High School, Montreal),	639
47.	Katie C. Pearson (Girls' High School, Montreal), } equal,	637
61.	Alexander H. Duff (Collegiate Institute, Montreal),	
187.	Maude I. M. Newton (Lachute Academy), } equal,	631
231.	Grace L. Codd (Waterloo Academy),	
232.	Malcolm M. Libby (Waterloo Academy),	630
39.	Florence Jordan (Girls' High School, Montreal),	627
19.	Ernest McConnell (High School, Montreal),	626
9.	Archibald Gilday (High School, Montreal), } equal,	624
109.	Gerbrand E. V. Howard (Aylmer Academy),	
35.	Florence L. Copland (Girl's High School, Montreal),	621
71.	Randolph B. Mackedie (Abingdon School, Montreal),	605
56.	William G. Bishop (Collegiate Institute, Montreal),	604
235.	Myrtle M. Phelps (Waterloo Academy),	602
138.	W. Scott Hutchinson (Cote St. Antoine Academy),	599
179.	Jennie G. Bracken (Inverness Academy),	595
87.	Mabel Dobbel (Girls' High School, Quebec),	585
74.	Gertrude Franchot (Trafalgar Institute, Montreal),	584
94.	Annie Smith (Girls' High School, Quebec),	577
127.	Nellie E. Kilton (Cookshire Model School),	560
120.	Albert E. Snyder (Coaticook Academy),	556
119.	F. Frederika Ryckman (Coaticook Academy),	554
197.	Rebecca L. Avery (Sherbrooke Girls' Academy),	552
23.	John E. Radford (High School, Montreal),	550
142.	MacIver Terrill (Cote St. Antoine Academy),	549
45.	Christian C. Murphy (Girls' High School, Montreal), } equal,	547
115.	Euphan E. Doak (Coaticook Academy)	
161.	Alfred Swift (Granby Academy),	545
158.	Marion H. Gill (Granby Academy),	539
52.	Florence Thompson (Girls' High School, Montreal),	537
81.	Henry A. Collins (St. John the Evangelist's School, Montreal),	536
17.	Percy Luttrell (High School, Montreal),	521
15.	Forrester Leslie (High School, Montreal), } equal,	520
139.	Arthur Jarvis (Cote St. Antoine Academy)	

No.		Marks.
60.	Frederick C. Douglas (Collegiate Institute, Montreal),	517
143.	Saidie Tighe (Cote St. Antoine Academy),	515
5.	Herbert Clarke (High School, Montreal),	508
18.	Walter H. Lynch (High School, Montreal),	506
49.	Lena M. Reid (Girls' High School, Montreal),	504
54.	Annie E. Wilson (Girls' High School, Montreal),	502
156.	Cora M. Duncan (Granby Academy),	499
135.	Robert Angus (Cote St. Antoine Academy),	498
124.	Edith L. Ives (Compton Ladies' College),	493
50.	Anna M. Scrimger (Girls' High School, Montreal),	491
48.	Jessie L. Pedersen (Girls' High School, Montreal),	490
141.	William Phillips (Cote St. Antoine Academy),	485
240.	Lilian F. Swanson (Waterville Model School),	476
202.	Lizzie Sangster (Sherbrooke Girls' Academy),	471
159	Joseph Lippiatt (Granby Academy),	467
212.	Laura Rugg (Stanstead Wesleyan College),	459
216.	Edith Simpson (St. Andrew's Model School)	457
174.	William S. McLaren (Huntingdon Academy),	446
65.	Frank A. C. Mariotti (Collegiate Institute, Montreal),	441
41.	Josephine Macartney (Girls' High School, Montreal),	437
162.	William F. Vittie (Granby Academy),	426
180.	Maud Hanran (Inverness Academy),	408
118.	Winifred E. Nunns (Coaticook Academy),	398
16.	Fred. Locker (High School, Montreal), } equal,	393
181.	Lena Marsh (Knowlton Academy), }	
7.	Fred. Cowans (High School, Montreal),	387
198.	Agnes R. Edwards (Sherbrooke Girls' Academy),	382
113.	Minnie B. Sulley (Bedford Academy),	369
155.	Lottie Ball (Granby Academy),	323
189.	Jessie C. Walker (Lachute Academy),	298
117.	Maud G. McKee (Coaticook Academy),	286

II. *Over* 18 *years of age.*

76.	Katherine E. Mudge (Miss Symmers' and Miss Smith's Sch., Montreal),	820
165.	Robert W. Dalgliesh (Huntingdon Academy),	769
163.	Cora G. Blair (Huntingdon Academy),	744
172.	J. Albert McGregor (Huntingdon Academy),	737
176.	Margaret Moe (Huntingdon Academy),	716
238.	Marion A. Solomon (Waterloo Academy),	697
11.	George A. Holland (High School, Montreal), } equal,	674
177.	Joseph Moore (Huntingdon Academy), }	
99.	Mabel L. Fairweather (Girls' High School, St. John, N.B.),	651
237.	Mary E. Savage (Waterloo Academy),	648

No.		Marks.
114.	Charles B. Woodworth (Bedford Academy),	628
175.	Duncan McNair (Huntingdon Academy),	611
92.	Sara Jomini (Girls' High School, Quebec),	607
95.	Ada A. Burns (Girls' High School, St. John, N.B.),	577
201.	Elizabeth M. Parslee (Sherbrooke Girls' Academy),	556
104.	Annie R. Miller (Girls' High School, St. John, N.B.),	555
191	Forest A. Garland (Mansonvile Model School),	537
97.	Bertha M. Cushing (Girls' High School, St. John, N.B.),	507
36.	Ruby E. Dedman (Girls' High School, Montreal),	503
110.	S. Robert Martin (Aylmer Academy),	502
79.	Ethel Gertrude Ross (Miss Lawder's School, Montreal),	482
178.	John J. Walker (Huntingdon Academy),	479
91.	Harriet T. Meiklejohn (Girls' High School, Quebec),	475
130.	Cyrus M. McCrae (Cookshire Model School),	473
25.	Watson Rowell (High School, Montreal),	442
204.	Earle P. Hovey (Stanstead Wesleyan College),	425
108.	Blanche J. Thorne (Girls' High School, St. John, N.B.),	418
51.	Edith M. Smaill (Girls' High School, Montreal),	416
157.	Bella J. Giddings (Granby Academy),	415
171.	Peter McEwen (Huntingdon Academy),	409
223.	Evelyn Perchard (High School, St. Johns, P.Q.),	398
152.	Ruperta Riddle (Danville Academy),	283
72.	Robina Bryson (Trafalgar Institute, Montreal),	381
215.	Annie F. Dewar (Bellevue Private School),	373
123.	Lucy F. Fiske (Compton Ladies' College),	368
154.	Adelbert C. Webb (Danville Academy),	363
207.	Samuel Jones (Stanstead Wesleyan College),	351
188.	Janet E. Rodger (Lachute Academy),	328
116.	Katie I. Hall (Coaticook Academy),	302

PASSED THE PRELIMINARY SUBJECTS.

(In order of numbers).

27	67	83	86	107	222	226	241	242	243	245	246	248	250
251	252	253	256	259	261	263	267	269	270	271	274	276	279
280	281	285	290	291	293	295	296	300	301	303	304	305	308
309	310	312	314	316	318	322	325	326	327	330	332	333	334
336	339	342	344	353	355	356	357	359	361				

McGILL UNIVERSITY, MONTREAL.

JUNE, 1894.

The following Candidates have passed the Examinations required for Entrance.

I. In Arts and Medicine.

Avery, Rebecca L.,	Sherbrooke, Q
Bishop, Wm. G.	Montreal
Blair, Cora G.,	Huntingdon, Q
Brodie, Daisy,	St. Henry, Q
Burns, Ada A.,	St. John, N.B
Cameron, Archibald,	Montreal
Cameron, Frances,	Montreal
Campbell, John,	Montreal
Carr, Muriel B.,	St. John, N.B
Codd, Grace L.,	Waterloo, Q
Collins, Henry A.,	Montreal
Copland, Florence,	Montreal
Costigan, John W.,	Montreal
Dalgleish, Robt. W.,	Huntingdon, Q
Davidson, Jas. H.*,	Montreal
Doak, Euphan E.,	Coaticook, Q
Dobbel, Mabel,	Quebec
Ferguson, Wm. R.,	Dutton, Ont
Fiske, Lucy F.,	Coaticook, Q
Fortune, Wilhelmina,	Huntingdon, Q
Gardner, Wm. A.,	Huntingdon, Q
Gibson, Maud,	St. John, N.B
Gilday, Archibald,	Montreal
Gill, Marion H.,	Granby, Q
Gordon, Minnie F.,	Lachute, Q
Heeney, Wm. B.,	Montreal
Jordan, Florence,	Montreal
Kilton, Nellie E,	Cookshire, Q
Leney, John N.,	Montreal
Lynch, Walter H.,	Montreal
McGregor, J. Albert,	Huntingdon, Q
McLaren, Archibald H.,	Huntingdon, Q
*Mackedie, Randolph B.,	Montreal
Miller, Annie R.,	St. John, N.B
Moe, Margaret,	Ormstown, Q
Moore, Joseph,	Kilbain, Q
Mudge, Catherine E.,	Montreal
*Munn, David W.,	Quebec
Newton, Maude I. M.,	Lachute, Q
Norris, James,	Montreal
Parks, Laura,	St. John. N.B
Parsloe, Elizabeth M.,	Sherbrooke, Q
Paterson, Kate E.,	Montreal
Paterson, Robt. C.,	Montreal
Pearson, Ida M.,	Waterloo, Q
Perchard, Evelyn,	St. Johns, Q
Phelps, Myrtle M.,	Eastman, Q
Potter, Lucy E.,	Montreal
Radford, John E.,	Montreal
Riddle, Ruperta,	Danville, Q
Ross, W. J.,	Martintown, Ont
Rugg, Laura,	Stanstea[1], Q
Ryckman, F. Frederika,	Coaticook, Q
Savage, Mary E.,	Waterloo, Q
Seifert, Ethel M.,	Quebec
Ship, Moses,	Montreal
Snyder, Albert,	Coaticook, Q
Solomon, Marion A.,	Waterloo, Q
Stewart, Donald,	Dunbar, Ont
Stimpson, Mary L.,	Granby, Q
Thompson, James,	Coaticook, Q
Thompson, Jas. R.,	Kinnear's Mills, Q
Tighe, Saidie,	Cote St. Antoine, Q
Turner, Wm. D.,	Appleton, Ont
Vineberg, Abraham,	Montreal
Wainwright, Arnold,	Montreal
Watson, Robt.,	Williamstown, Ont
Webb, Adelbert C.,	Asbestos, Q
Williamson, Beatrice,	Montreal
Woodworth, Chas. B.,	Bedford, Q

II. In Applied Science.

Bacon, Fred. T. H.,	Montreal
Bond, Frank L. C.,	Montreal
Butler, Percy,	Montreal
Cape, Edmund G.,	Hamilton, Ont
Cowans, Fred.,	Montreal
Davis, Angus T. W.,	Montreal
Locker, Fred.,	Montreal
Macdonald, Ralph E.,	Antigonish, N
Sheffield, Charles,	Kingston, Ont
Thomas, Leonard,	Montreal
Terrill, McIver,	Cote St. Antoine, Q
Ward, Albert H.,	Hamilton, Ont
Waterous, Chas. A.,	Montreal

NOTE.—Candidates who have failed in one or more subjects will, if they present themselves at the opening of the session in September next, be exempted from examination in those subjects in which they have obtained at least half marks.

Successful Candidates must present themselves for enregistration to the Deans of their respective Faculties before the commencement of Lectures.

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* Also in Applied Science.

STANDING IN THE OPTIONAL SUBJECTS.

[The numbers correspond with those in the preceding lists. Candidates whose numbers are in parentheses are equal in standing. Those preceding a single asterisk have obtained at least two-thirds of the marks; those preceding a double asterisk, at least one-half; those following, at least forty per cent. The Schools' and Candidates' numbers are as follows: Montreal High School (Boys), 3-32 and 241-292; Montreal High School (Girls), 33-54 and 293-326; Montreal Collegiate Institute, 1 and 55-69 and 327-352; Abingdon School, 70 and 71; Trafalgar Institute, 72-75 and 353-356; Miss Symmers and Miss Smith, 76-78 and 357; Mrs. Lawder's, 79, St. John the Evangelist's, 80-82; Sabrevois School, 83-86 and 358; High School, Quebec (Girls'). 87-94; High School, Quebec (Boys'), 2 and 359-362; Girls' High School, St. John, N.B., 95-108, Aylmer Academy, 109-111; Bedford Academy, 112-114 and 363-365; Coaticook Academy, 115-121; Compton Ladies' College, 122-124; Cookshire Model School, 125-133; Cote St. Antoine Academy, 134-143; Cowansville Academy, 144-146; Danville Academy, 147-154; Granby Academy, 155-162; Huntingdon Academy, 163-178; Inverness Academy, 179-180; Knowlton Academy, 181-184; Lachute Academy, 185-189; Mansonville Model School, 190-193; Mystic Model School, 194; Shawville Academy, 195 and 196; Sherbrooke, Girls' Academy, 197-202; Stanstead Wesleyan College, 203-214; St. Andrew's Model School, 215 and 216; St. Francis College School, 217-222; St. Johns High School, 223; Waterloo Academy, 229-238; Waterville Model School, 239 and 240; Paspebiac Model School, 366; Miss Gairdner's School, 367; Sutton Academy, 224-227; Three Rivers High School, 228.]

Latin.—77, 76, 69, 66, 167, 160, 96, (106, 165), 30, (172, 173), 101, 3, 34, (78, 238), 176, 13,* 50, (36, 136), 14, (38, 122, 186), (6, 109), 177, 26, (187, 236), (157, 237), 63, (60, 84), (92, 202, 231), (56, 73, 99, 100,) (29, 42, 224), 158, (22, 133),(47, 55), (44, 93), (75, 163, 166), (114, 156), (8, 143), (52, 127, 152, 159, 235), 110, (105, 161, 179), (17, 61, 223, 232, 233), 120, (121, 148, 175,) (4, 119), **215, 124, (82, 162, 210, 229, 234), (35, 54), (40, 45, 51, 71), (41, 95,) 138, (19, 32, 87, 97, 197), (23, 39, 81, 94), (9, 48, 240), 154, (16, 33, 123, 151), (115, 212), (70, 107, 118, 178, 180), 153, (31, 104), (18, 46, 65, 98, 142, 150, 191, 195, 201).

Latin (Advanced).—2,** 1.

Greek.—66, 167, (69, 93), 76, (14, 173), 82, (56, 172),(6, 26), (63, 165), (9, 177), 77,* (30, 94), 166, 176, 55, 163, (62, 78), 92, 114, 120, 121, 81, (91, 175), (25, 60), 195, 32, (8, 89, 210), 88, 19,** 178, 23, 87, 71, 207, 204, 18, (90, 151), 169.

Greek (Advanced).—1, 2.*

French.—35, 30, (34, 76), (99, 121), (77, 96,) (163, 224), 166, (26, 136, 173), (66, 127), (3, 11, 176), (6, 106, 165), (78, 83), (13, 93, 167), (14, 38, 73, 119, 195), (17, 47, 141), (48, 70, 172), (63, 178, 179), (84, 101, 115), 177, 237, (5, 32),* (9, 44, 100, 114, 160, 175, 210), (45, 92, 122, 202, 240), 69, (19, 79, 139, 216), (7, 25, 40, 43, 50, 61, 74, 186, 233), (49, 60), (22, 29, 86, 133), (32, 42, 192, 226, 234), (39, 75, 105, 113, 120, 138, 238), 197, (82, 198, 229, 236), (87, 142, 159), (8, 56, 95, 135, 143, 156), (27, 91, 148, 158, 187), (155, 189, 204, 231), (116, 181, 211, 215), (33, 81, 110, 154),** (18, 108, 130, 140, 162, 201), (57, 129, 188, 191, 212, 223), (15, 23, 36, 137, 152, 225), (10, 103, 171, 232), (71, 124), (62, 94, 102, 104), (51, 85, 98, 161, 235), (31, 55, 125, 174), 123, (117, 199).

French (Advanced).—2, 1.*

German.—44, 34, 50, 47, 74, 35, 73,* 36, 38, 75** 72.

Geometry.—70, (167, 172), 93, (29, 77), (13, 14, 26, 52, 71, 163, 165), 238, (177, 187), (35, 231), (30, 92), (3, 75), (82, 121, 137), (11, 61, 173), (7, 229, 232), (8, 9, 79, 94, 96, 122, 138, 171, 204), (100, 103, 230), (73, 170, 179), 135, (23, 31), (18, 88, 202), (6, 81, 130, 186), (74, 134, 195, 201, 210, 237), (97, 106, 127, 131, 160, 166, 181, 224, 234, 236),* 19, (17, 66, 154, 214), (72, 87, 95, 212, 223), (76, 107, 126), (91, 139, 142), (25, 56, 102, 110, 191), (39, 69, 141, 158, 233), (176, 183, 366), (174, 189), (4, 22, 193), (101, 235), (115, 140, 198), (15, 215, 216), 222, (152, 192), (65, 86, 109, 119, 128, 136, 180, 227),** (63, 78, 105, 124, 157), (153, 197, 225), 80, (24, 89, 211, 240), (58, 98, 108, 156, 217, 221), (20, 67, 118), (16, 161), (114, 123, 132, 206, 208), (120, 162, 188), (5, 21, 55, 90, 113, 116, 129, 143, 148, 185, 194, 207).

Geometry (Advanced).—2, 1*

Algebra.—96, 66, 136, 106, 61, (101, 102), (128, 165), 163, 167, 30, 236, 99, 15, (131, 142, 173, 235), (76, 100), 141,* (9, 186), 95, (39, 57, 97), (69, 227), (77, 223), 3, 29, (70, 93, 135), (204, 231), (26, 38, 105, 192, 195), (71, 98, 114, 179, 232), (4, 34, 37, 41, 121, 143, 176), (11, 47, 103, 134, 155), (87, 152, 212), (13, 23, 181), 234, (35, 120),** (6, 7, 31, 60, 104, 140, 170, 180), (22, 55, 56, 119, 159, 198), (14, 21, 45, 74, 79, 84, 115, 158, 175, 222), (49, 191), (53, 78, 113, 132, 147, 187, 211, 216, 238), (54, 65, 67, 117, 129, 172, 214, 237, 366), (51, 75, 183, 194), (8, 82, 127, 154, 171, 197, 208), (5, 16, 17, 48, 62, 64, 73), (18, 20, 36, 50, 81, 83, 91, 107, 109, 111, 112, 118, 123, 130, 133, 160, 161, 162, 166, 177, 189, 201, 205, 206, 207, 225, 226, 230).

Algebra (Advanced).—2,* 1.

Trigonometry.—(163, 165), (70, 175), 63, 176, (61, 66, 172), 114, 71, 29, 177, 55, (142, 172), 167, 31, 13, (3, 57, 62,) 65, (135, 138), *156, 113, (56, 81, 161, 174), (24, 178), 22, (60, 160), 82, 16,** (7, 68, 69, 80), 131, (20, 64, 67, 195).

Trigonometry (Advanced).—2* .

English Language.—69, 75, 96, 49, 74, (38, 73), 34, 43, (44, 101), 58, 79, (52, 62, 72), (35, 3,9) (99, 100, 108,) *(41, 48), 36, (61, 224), 95, 63, 54, 40, 45, (47, 53), 97, ** 46, 107, 33, 104, 42, (50, 105), (55, 65).

English Language (Advanced).—1*.

English Literature.—96, 44, (49, 77), 74, 93, (35, 39, 97, 139), (75, 76), (26, 30), (42, 66, 94, 99, 108, 133, 210, 229), (38, 233, 234), (13, 92), (106, 176), (17, 34, 36, 110), (87, 134, 160, 237), 11, (3, 69, 79, 130, 138, 163, 224), (14, 19, 41, 84, 88, 100, 119, 148), (6, 29, 46, 68, 122, 205, 231) , (5, 18, 43, 45, 47, 54, 73, 115, 136, 137, 153, 179), (109, 114, 187), (56, 166), (8, 31, 72, 214, 244), (7, 22, 40, 50, 78, 91, 121, 201, 235, 238), (63, 107, 127, 152, 159, 175), (23, 120, 140, 174, 178, 186), (25, 37, 58, 90, 123, 156, 197, 198, 216, 366), (55, 135, 143, 191, 195), (32, 95, 101, 102, 124, 131, 132, 144, 15, 236), (9, 52, 60, 103), (158, 230), (59, 53, 62, 67, 118, 189, 222), * (15, 51, 212, 232), (89, 145, 154, 169, 199, 223), (48, 70, 171), (141, 211), (27, 64, 117, 146, 208, 226), (33, 180, 188, 204, 221), (196, 217), 104, (65, 150, 170, 227), (24, 155, 202), (10, 113, 161, 181), (105, 164), (20, 193, 207), 57**, 194, (98, 116, 225), 185, (125, 192), 162, (147, 239), 112.

English Literature (Advanced).—1.*

History.—(77, 78), 122, 109, 76, (75, 210), 224, (130, 138), 99, 86,*68, (74, 79), 139, 214, (191, 212), (141, 197), 140, (58, 202), 73, 124, 215,**195, 204, 142, 193, (72, 85, 198, 227, 240).

History (Advanced).—2, 1.*

Geography.—61, 173, (11, 96) 77, (237, 240), 229, (17, 32, 69, 85, 115, 236), (6,9), (66, 76, 82), (15, 70, 78, 109, 110, 121, 130), (174, 238), (68, 234), *(3, 5, 8, 20, 30, 102), (67, 160, 23), (13, 16, 22, 165), 29, (18, 94, 119, 122, 127, 163, 176, 235), 31, (71, 81, 91, 99, 159, 167, 172, 175, 210), (166, 232), (9, 87, 101, 177), (120, 125, 170, 222, 233), 131, (14, 95, 126, 157, 169, 201, 227), (59, 80, 92, 118, 215), (21, 158, 366), (27, 106, 107, 187, 216, 239), 26, 58, 89, 100, 104, 133, 141, 179, 224), **(56, 97, 161, 164, 186), 129, (145, 155, 171, 180), (24, 55, 64, 124, 136, 191), (63, 108, 116, 197), (65, 139, 150, 156, 162, 148), (25, 51, 90, 103, 123, 128, 132, 181, 189, 195, 212), (142, 147, 199), (23, 88, 114, 117, 143, 144, 146, 188, 196, 217).

Zoology.—234, 229, 233, 231, 236, 238,* 235, 237, 216,** 230.

Botany.—66, 76, 44, 49, 75, (74, 96), (38, 77, 93), (54, 56), (99, 136), 39, (46, 72), 34, 104, 179, (45, 236), (121, 187, 238), (122, 197, 201), 115, (41, 137), (124, 174, 229), (78, 127, 143, 237), 186, (64, 95, 101, 171), (53, 100, 134, 233), 145,* 215, (47, 119), (48, 116, 118, 198, 221, 235), 139, (73, 144), 231, 164, (126, 180), (60, 202), (65, 146, 191, 222, 230), (51, 97), (105, 106, 193, 234), (117, 177), (37, 133, 217)** (33, 40, 118, 224, 227), (59, 188), (135, 140), (103, 120), 108, 114, (131, 199), (125, 132, 185), (102, 128).

Chemistry.—109, 15, (3, 44, 71, 160, 161), 31, (24, 70, 216), (17, 29), (7, 13, 52), (155, 158), (22, 49, (4, 159), (11, 41, 51), 46, (47, 157)* (5, 45, 110), (39, 40, 162), 38, 156, 106, (16, 34, 48, 101), 33,** 20, 58), 21, 104, (97, 100), (37, 108).

Physiology and Hygiene.—8, 93, 19, 69, (11, 63, 163), (61, 134, 167), (87, 94, 130), 160, (136, 138, 165, 179), (92, 166, 238, 240), (55, 232), (79, 176, 210, 234), 143, 139, (109, 172, 186, 207), (30, 91, 137), (119, 226, 229), 174, 62, (153, 191, 233), (67, 84, 85, 88, 114, 122, 158), (82, 121, 236), 135, 171, 177),* (110, 145, 161), (5, 173, 197, 214), (115, 124, 180, 181, 206, 235), (175, 224), (89, 118, 141), (86, 127), (113, 187), (58, 133), (116, 142, 147, 223), (192, 201, 202, 237), (90, 148, 154, 157, 170, 239, 366), (26, 126), (81, 132, 144, 152), (80, 120, 140, 159, 162, 164, 178, 204), 156,** (117, 146, 198), 222, (83, 169), (194, 221), 123, (188, 199), 131, (185, 193, 205, 211), (150, 155, 183, 189, 208, 212, 231).

Physics.—70, (29, 232), 206, 13, 31, 11, 8*, 9, 24, 15, (6, 19), (3, 20, 207), 23,** (30, 58), 14, 25, (5, 22), 27.

Physics (Advanced).—1.**

Drawing.—20, 38, 6, 36, (8, 136), (11, 23), 31,* (30, 164), (35, 45, 142), (3, 54, 137, 172, 232) (15, 29, 104), 52, (50, 138), (22, 187), (47, 135), (96, 201), (24, 53, 134, 139), (141, 186), (19, 40, 100), 25, 49,** (95, 113), 51, (39, 44, 188), 48, (13, 42), (5, 9), 18, (14, 34, 37, 46, 101, 103 106, 108, 140, 216).

Drawing (Advanced).— 2.*

Passed the University Examinations.

SESSION 1893-94.

FACULTY OF LAW.

PASSED FOR THE DEGREE OF D. C. L. IN COURSE.

Donald MacMaster, B.C.L., Q.C.

PASSED FOR THE DEGREE OF B.C.L

Arthur Hogle, Montreal.
Gordon Walter MacDougall, B.A. Montreal.
John H. Dunlop, Montreal.
William Henry Cox, B.A., (Laval), Montreal.
Jerome Internoscia, B.A., (McGill), Rapolla, Italy.
Bannell Sawyer, Cote St. Antoine, Q.
Arthur G. Jones, Richmond, Q., (Aeger.)
Joseph Charles Walsh, B.A., (Laval), Montreal.
Philip Sheridan, Montreal.

FACULTY OF MEDICINE

PASSED FOR THE DEGREE OF M.D., C.M.

(Arranged alphabetically).

Bazin, A. T.,	Montreal	Hannington, J. P.,	Montreal
Byers, W. G. M.,	Gananoque, O	Hart, E. C.,	Baddeck, N.S
Colvin, A. R.,	Lethbridge, N.W.T	Henderson, W.,	Vars, O
Davidson, A.,	Burns, O	Hepworth, W. G.,	Manitoba
Davis, R. E.,	Fallowfield, O	Holohan, P. A., B.A.,	Newcastle, N.B
Drysdale, W. F.,	Perth, O	Jacques, H. M.,	Upper Dyke, N.S
Estey, A. S.,	Keswick Ridge, N.B	Kearns, J. F.,	Metcalfe, O
Evans, J. W.,	Hull, Q	Kinghorn, H. McL., B.A.,	Montreal
Ferguson, W.,	Pictou, N.S	Lambly, W. O.,	Montreal
Fowler, E. S.,	Hudson, Wis	Lewis, J. F.,	Hillsboro', N.B
Fry, F. M., B.A.,	Montreal	MacCarthy, G. S.,	Ottawa
Fulton, J. A.,	Franklin Centre, Q	McCrea, J.,	Detroit, Mich
Gorrell, C. W. F.,	Brockville	McLaren, J. T.,	Bell Creek, P.E.I.
Hamilton, G.,	Bright, O	McLaughlin J. A.,	Avonmore, O.

McLean, C.M., Cambridge, N.B
McIntosh, L. Y., Strathmore, O
McKenzie, L. F., Montreal
Manchester, G. H., Ottawa
Mathewson, G.H., B.A., Montreal
Mitchell, W., Lachute, Q
Nicholls, A.G., M.A., Montreal
O'Connor, E.J., Ottawa, O
Ogden, C. L., B.A., Warrensburg, N.Y
Pritchard, J., B.A, North Wakefield, Q
Reeves, J., Eganville, O
Richardson, A., South March, O
Richardson, H.J., Spencerville, O
Rimer, F.E., Bryson, Q
Robertson, A. A., B.A., Montreal
Ross, D. W., Peel, N.B
Ross, H., Thorburn, N.S
Ross, J.J., Derwentville, Q
Scammell, J. H., St. John, N.B
Scott, W. H., Owen Sound, O
Sharpe, E. M., Havelock, N.B
Shaw, H. S., Montreal
Shillington, A. T., Kemptville, O
Stenning, W. A., Coaticook, Q
Wilson, R. D., Derby, N.B
Wolf, C. G. L., B.A., Winnipeg, Man
York, H. E., Metcalfe, O

PASSED THE PRIMARY EXAMINATION.

(Arranged alphabetically).

Allen, J. H., B.A., West Osgoode, O
Archibald, E. W., B.A., Montreal
Ault, C. R., Tilsonburg, O
Braithwaite, J. M. Mc., Barbadoes, W.I
Brunelle, P., Lowell, Mass
Church, H. M., Montreal
Churchill, J. L., Lockport, N.S
Colquhoun, P., B.A., Colquhoun, O
Corbett, F. A., B.A., Parrsboro', N.S
Craig, R. H., Montreal
Deacon, G. R., Stratford, O
Dewar, J. E., Glen Sandfield, O
Ellis, G. H., Dundela, O
Elliot, F. B., Mayfair, O
Estey, A. S., Keswick Ridge, N.B
Evans, J. W., Hull, Q
Ewan, R. B., Montreal
Ferguson, J. A., Easton Corners, O
Findlay, C., Hamilton, O
Fish, E.C., B A., Newcastle, N.B
Fisk, W. M., Abbotsford, Q
Foss, A. F., Sherbrooke, Q
Gallant, St. C.G., Charlottetown, P.E.I
Goltman, A., Montreal
Grant, A. J., Pembroke, O
Grant, D., Pictou, N.S
Hartin, G., Bells Corners, O
Harwood, R. DeL., Vaudreuil, Q
Hepworth, W. G., Winnipeg, Man
Hogle, J. H., Montreal
Howell, W. B., Montreal
Irvine, A. D., Montreal
Keith, H. W., Havelock, N.B
Kelly, J. K., Almonte, O
Kendrick, W. N., Spring Valley, Minn
Lambly, W. O., Inverness, Q
Launder, S. E., Durham, Q
Lanterman, M., Montreal
Lee, F. J., Port Hope, O
Lewis, J. T., Hillsboro', N B
Lynch, D. P., Chapleau, Q
McArthur, A. W., Williamstown, O
McEwen, D., St. Elmo, O
McGannon, A. V., Brockville, O
McNally, G. J., Kingsclear, N.B
McTaggart, D. D., Montreal
Macartney, F. W., Montreal
Martin, R. H., Chatham, O
Mitchell, R. J. W., B.A., Montreal
Moffatt, W. A., Ormstown, Q
Moles, E. B., Arnprior, O
Morse, L.R., B.A., Lawrencetown, N.S
Mowatt, W. B., Montreal
Neil, R. W., Aylmer, Q
Ogden, C.L., B.A., Warrensburg, N.Y
Palmer, A. J., Buckingham, Q
Quay, D. D., Port Hope, O
Quirk, E. Mc. G., Montreal
Robins, G. D., B.A., Montreal
Ross, R.O., B.A., Margaree, N.S
Ryan, J.P., Portage la Prairie, Man
Scammell, J. H., St. John, N.B
Secord, J. H., Summerside, P.E.I
Shaw, R. B., Cove Head, P.E.I
Shaw, H. M., Berwick, N.S
Smillie, W., Huntingdon, Q
Smith, R.E.G., B.A., Woodstock, N.B
Smyth, W. H., B.A., Montreal

Staples, C. A. B.A.,,	Stillwater, Minn	Warren, J. F.,	Harper, O
Steeves, C. P., B.A.,	Lower Coverdale, N.B	Watson, J. A., B.A.,	Barbadoes, W.I
Sutherland, J. A.,	River John, N.S	Wheeler, F. H., B.A.,	Florenceville, N.B
Sterling, A.,	Fredericton, N.B	White, R. B.,	Pembroke, O
Tétreau, T.,	Lawrence, Mass	Williams, J. A.,	Carleton Place, O
Thomson, F. L.,	Mitchell, O	Wood, D. M.,	Kenmore, O
Tupper, T. S.,	Fredericton, N.B	Wood, N. S.,	Faribault, Q
Vipond, C. W.,	Montreal	Wright, H. K.,	Montreal
Walker, D. F.,	Huntingdon, Q		

FACULTY OF ARTS.

BACHELORS OF ARTS PROCEEDING TO THE DEGREE OF M.A. IN COURSE.

Binmore, Elizabeth, B.A.
Davidson, Peers, B.A.
Gunn, William T., B.A.
McLeod, Euphemia, B.A.

ADMITTED TO THE DEGREE OF LL.D. "HONORIS CAUSA."

His Excellency The Rt. Hon. John Campbell Hamilton Gordon, Earl of Aberdeen.

Francis Reuleaux, Professor of Kinematics and Machine Design, Berlin.

PASSED FOR THE DEGREE OF B.A.

In Honours.

(Alphabetically arranged).

McGILL COLLEGE.

First Rank.—Davis, David T.
Day, Frank J.
Graham, Angus.
Mackenzie, Jane E. F.
Moffat, David S.

Second Rank.—Dickson, Sydney M.
Smith, Alistair.
Warner, Agnes L.

Ordinary B.A

McGILL COLLEGE.

Class I.—Harper, Robert M.
Ogilvy, Isabella

BLACKET, JOHN W.
BARLOW, WALTER S.
FRASER, FRANK C.

Class II.—DICKSON, ED. H. T.
BOYD, LESLIE H.
OGILVY, CHAS.
STEWART, J. C.
CRAIG, MARGARET.
SHAW, S. LOUISA.
HARVEY, FRED. W.

Class III.—DUCLOS, ARNOLD W.
GRAHAM, FRED. H. } equal.
HANRAN, ROBT. F. }
DAVIS, ERNEST A.
NAYLOR, HENRY A.
BROWN, JESSIE }
HARGRAVE, EDITH } equal.
MACKERACHER, W. M. }
GARRETT, W. P.
BOND, WM. L. } equal.
MACVICAR, ROBT. M. }
BICKERDIKE, F. A. C.
MACGREGOR, ALEXANDER,
BREMNER, WM. }
LAMBLY, M. O. } equal.
LEWIS, W. P. ROY }
IRELAND, GEO. D.

Passed in September 1893.—BRITTAIN, ISABEL.
CAMPBELL, ROSALIA F.

MORRIN COLLEGE.

Class II.—FRASER, ETHEL. _____

PASSED THE INTERMEDIATE EXAMINATION.

McGILL COLLEGE.

Class I.—FERGUSON, WILLIAM.
HAMMOND, ELIZABETH A.
SMILEY, FRANCIS C.
ROBERTSON, JOHN C.
COLE, WILFRID G. G.
SAUNDERS, FRANK C.
CAMPBELL, GEORGE A.

ARCHIBALD, SAMUEL L. } equal.
SCOTT, ARTHUR P. }

Class II.—NICHOLS, AMY W.
HURST, J. ETHEL.
MOLSON, KENNETH.
HENDERSON, GRACE.
HUTCHINSON, MARGARET.
ROSS, HERBERT.
LENNON, WALTER S.
PITCHER, WINONA J.
LOCKE, WINIFRED A.
MITCHELL, KATHARINE R.
HILL, HARRIET S. M.
SCHWARTZ, HANS J.
GORDON, ALFRED E.

Class III.—ST. JAMES, LEAH A.
POLLOCK, THOS. J.
TURNER, WILLIAM G.
BATES, G. E. *s*
BROWN, JUSTINE M. *s*
CHALMERS, LOUISE H. *s*
DENOON, AGNES H. *s*
HOWELL, ARCHIBALD R. *s*
McBURNEY, EDITH E. *s*
McCUAIG, MARY. *s*
MACPHAIL, JEANNETTE. *s*
SCRIMGER, J. TUDOR. *s*

MORRIN COLLEGE.

Class II.—LANGLOIS, PETER.

Class III.—MacWILLIAM, ELIZABETH.
TAYLOR, WILLIAM B. *s*

ST. FRANCIS COLLEGE.

Class III.—PATERSON, FREDERICK.
COBURN, DAVID. *s*
VAUDRY, OLIVA. *s*

WESLEYAN COLLEGE, STANSTEAD.

Class III.—BRYANT, FLORA.
HOWARD, CATHARINE,
RUGG, MARY A. *s*
RYAN, WILLIAM A. *s*

s With supplemental in one subject, arranged alphabetically.

FACULTY OF APPLIED SCIENCE.

PASSED FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

In Order of Merit.

CIVIL ENGINEERING.

Henry Martyn Mackay, B.A., Pictou, N.S.
Alexander Scott Dawson, Pictou, N.S.
Gerald Joseph Lonergan, Buckingham, Que.
John Rankin, Montreal.

ELECTRICAL ENGINEERING.

Frank Henry Pitcher, Montreal.
Alfred Collyer, Sussex, England.
Charles Henry Blackwood Longworth, Charlottetown, P.E.I., } equal.
John William Morris, Wallace, N.S.

MECHANICAL ENGINEERING.

Edward Darling, Montreal.
William Archibald Duff, Montreal.
Arthur Langley Mudge, Montreal.
Leonard William Ernest Dyer, Montreal.
James Shearer Costigan, Montreal.
John Herbert Larmonth, Ottawa, Ont.

MINING ENGINEERING.

Arthur Augustus Cole, B.A., Montreal.
Orton Edward Simpson Whiteside, Metcalfe, Ont., } equal.
William Wilson Leach, Montreal.
Frank Lambert, Woodstock, Ont.
Robert Alexander Gunn, Montreal.
Walter Chamblet Adams, B.A. Sc., Montreal.

PRACTICAL CHEMISTRY.

Herbert Molson, Montreal.
Alexander Brodie, Quebec, Que.
Matthew Francis Connor, Ottawa, Ont.

BACHELORS OF APPLIED SCIENCE PROCEEDING TO THE DEGREE OF MA. E. IN COURSE.

John George Gale Kerry, B.A.Sc.
Robert Forrest Ogilvy, B.A.Sc.
Cecil Brunswick Smith, B.A.Sc.
Ernest Albert Stone, B.A.Sc.

FACULTY OF VETERINARY SCIENCE.

PASSED FOR THE DEGREE OF D.V.S.

B. Anderson
A. G. Cannon
C. French
D. McAlpine
A. E. Moore
J. R. Shaw
J. F. Walsh
G. P. Baker
E. J. Cary
R. H. Grattan
J. D. McGillivray
C. J. Mulvey
J. V. Solandt
J. A. Buchan
H. R. Clevelant
A. H. Hall
J. H. McLeod
I. L. Salley
R. Thomas

Scholarships and Exhibitions.

SESSION 1893-94.

FACULTY OF ARTS.

I. SCHOLARSHIPS (Tenable for two years).

Year of Award.	Names of Scholars.	Subject of Examination.	Annual Value.	Founder or Donor.
1892	Smith, A.	Mathematics.	$125	W. C. McDonald.
1892	Graham, A.	Nat. Science.	125	W. C. McDonald.
1892	Dickson, S. M.	Class. & Mod. Lang	120	Chas. Alexander.
1892	Dickson, E. T.	Class. & Mod. Lang	120	Barbara Scott.
1893	Howard, Edwin	Mathematics.	125	W. C. McDonald.
1893	Wallace, James	Nat. Science.	125	W. C. McDonald.
1893	MacIntosh, Major	Class & Mod. Lang	125	W. C. McDonald.

II. EXHIBITIONS (Tenable for one year).

NAMES OF EXHIBITIONERS.	Academic Year.	Annual Value.	Founder or Donor.
Robertson, J. C.	Second	$125	W. C. McDonald.
Hurst, Ethel	"	120	Sir Donald A. Smith.
Mackay, Hector	First	125	W. C. McDonald.
Cameron, Mary T.	"	100	Sir Donald A. Smith.
Bruce, John C.	"	125	W. C. McDonald.
Mackay, Malcolm	"	125	Geo. Hague, Esq.
Larmonth, George E.	"	100	Major Mills.
Wyman, Daniel B.	"	90	Mrs. Jane Redpath.

McDonald Bursaries, value $62.50 each, were awarded to A. K. Trenholme, and Ronald P. Campbell, at the First Year Exhibition Examination.

* And a Sir Donald A. Smith Free Tuition.

Prizes, Honours and Standing.

SESSION 1893-4.

FACULTY OF LAW.

THIRD YEAR.

GRADUATING CLASS.

Arthur Hogle, Montreal, First Rank Honours, and Elizabeth Torrance Gold Medal.

Gordon Walters MacDougall, First Rank Honours and prize of $50. and prize for Thesis.

John Hamilton Dunlop, Second Rank Honours and prize of $25.

SECOND YEAR.

Robert H. Barron, B.A., Lachute, First Rank General Standing, and first prize of $50.

Albert Swindlehurst, Montreal, First Rank General Standing, and second prize of $25.

PASSED THE SESSIONAL EXAMINATIONS.

Robert H. Barron, B.A., Lachute.

Albert Swindlehurst, Montreal.

S. Carmichael, B.A., Montreal.

E. B. Devlin, B.A. (St Mary's, Montreal), Aylmer, Que.

J. A. Devlin, Aylmer, Que.

Dominique Charles Gaudet, B.A. (Ottawa), Three Rivers, Que.

William Patterson, M.A., Montreal.

FIRST YEAR.

Victor Evelyn Mitchell, of London, England, First Rank General Standing and Scholarship of one hundred dollars; Louis Boyer, First Rank General Standing and Prize of Fifty Dollars.

Robert Thomas Mullen, Second Rank General Standing and Prize of twenty-five dollars.

Passed the sessional examinations in the First Year :—

V. E. Mitchell, London, England.

Louis Boyer, Montreal.

Robert T. Mullin, Leitchfield, Pontiac Co., Q.

Albert C. Hanson, Barnston, Q.

William Donahue, Farnham, Q.

Charles D. White, Sherbrooke, Q.

SESSIONAL EXAMINATIONS, 1893-94.

DEAN N. W. TRENHOLME, D.C.L., Q.C., Examiner.

FIRST EXAMINATION.

ROMAN LAW.—

Third Year.—Hogle, Jones; Dunlop and MacDougall, equal; Internoscia, Walsh, Sawyer, Cox.

Second " Barron, Swindlehurst, Devlin, E. B.; Carmichael and Gaudet, equal; Devlin J. A.; Landry and Whelan, equal; Lamoureux and Patterson and Sheridan, equal.

First " Mitchell and Mullin, equal; Boyer and White, equal; Ogilvie, Hanson, Doucet, Gamble, Donahue.

SECOND EXAMINATION.

Third Year,—MacDougall, Jones, Hogle, Cox, Internoscia, Dunlop, Sawyer.

Second " Barron; Swindlehurst and Carmichael, equal; Devlin E. B., Landry, Patterson, Gaudet, Whelan, Devlin J. A.

First " Mitchell and Mullin, equal; Boyer and Gamble, equal; Hanson; White and Donahue, equal; Ogilvie and Monty, equal.

OBLIGATIONS.—

Second Year.—Barron and Swindlehurst, equal; Sheridan, Carmichael, Devlin J. A., Gaudet, Whelan, Devlin E. B., Landry, Patterson.

First " Mitchell, White, Mullin, Boyer, Ogilvie; Hanson and Donahue and Doucet and Monty, equal.

MERCHANT SHIPPING.—

Third Year.—Hogle and MacDougall, equal; Dunlop, Internoscia Cox; Walsh and Sawyer and Ringland, equal; Sheridan, Jones (aegrotat).

Second " Swindlehurst and Barron, equal; Devlin E. B.; Patterson and Carmichael, equal; Whelan and Devlin J. A., equal; Gaudet, Landry.

First " Mitchell and Boyer, equal; Hanson; Gamble and Mullin, equal; Donahue, Doucet, White.

LAW OF REAL ESTATE.—Servitudes, Hon. J. S. C. WURTELE, Professor.

Third Year.—MacDougall and Sawyer, equal; Sheridan, Jones; Dunlop and Hogle, equal; Cox; Ringland and Internoscia, equal; Walsh.

Second " Barron, Devlin E. B., Swindlehurst, Carmichael-Gaudet, Landry, Patterson, Whelan, Devlin J. A.

First Year Boyer, White, Gamble ; Mullin and Hanson, equal ; Donahue, Mitchell, Ogilvie, Doucet, Monty.

COMMERCIAL LAW.—Sales, Hon. J. S. Archibald, D.C.L., Prof.

Third Year. —Internoscia, MacDougall, Cox, Hogle, Dunlop, Sawyer, Walsh.

Second " Barron, Devlin E. B., Carmichael, Gaudet, Swindlehurst, Landry, Whelan, Devlin J. A., Sheridan, Patterson.

First " Mitchell, Boyer, Donahue, Hanson, Mullen, Cole, Ringland, Ogilvie, White, Doucet.

BILLS, NOTES AND CHEQUES.—L. H. Davidson, D.C.L., Q.C., Prof.

Third Year.—Hogle, Jones, MacDougall, Dunlop, Cox, Sheridan, Internoscia, Sawyer, Walsh (æger).

Second " Barron, Carmichael, Gaudet, Swindlehurst, Devlin J. A., Landry, Lamoureux, Devlin E. B., Patterson, Whelan.

First " Mitchell, Gamble ; Boyer and Hanson, equal ; Mullin Donahue, White, Doucet.

LAW OF OBLIGATIONS AND CONTRACTS.—C. A. Geoffrion, Q.C., Prof.

Third Year.—Hogle, MacDougall, Jones, Dunlop, Cox ; Internoscia and Walsh and Sawyer and Sheridan, equal.

Second " Barron, Swindlehurst ; Carmichael and Gaudet and Devlin E. B., equal ; Whelan and Landry, equal ; Patterson and Lamoureux, equal ; Devlin J. A.

First " Boyer and Mitchell, equal ; Hanson and Mullen and White, equal ; Gamble, Fortier ; Donahue and Doucet, equal ; Monty, Ogilvie.

HISTORY OF LOWER CANADIAN LAW—FRENCH PERIOD.—Archibald McGoun, M.A., B.C.L., Prof.

Third Year.—Hogle, Jones, Dunlop, Sawyer ; Internoscia and Walsh, equal ; MacDougall, Cox, Sheridan.

Second " Swindlehurst, Barron, Devlin J. A., Whelan ; Carmichael and Patterson, equal ; Devlin E. B., Gaudet, Landry.

First " Gamble, and Mitchell, equal ; White, Mullen ; Donahue and Ogilvie, equal ; Boyer, Doucet, Hanson, Fortier.

CIVIL PROCEDURE.—Thomas Fortin, LL.D., D.C.L., Professor.

Third Year.—MacDougall, Jones, Hogle, Cox, Walsh, Dunlop, Internoscia, Sheridan, Sawyer.

Second " Barron, Swindlehurst, Whelan, Devlin E. B., Carmichael, Landry, Gaudet, Patterson, Devlin J. A.

First " Mitchell ; Boyer and Gamble, equal ; Mullin ; Donahue and Hanson, equal ; White, Ogilvie, Monty.

NOTARIAL LAW.—W. De M. Marler, B.A., B.C.L., Professor.

Third Year.—Hogle, Cox, MacDougall ; Internoscia and Dunlop, equal ; Sawyer, Walsh, Sheridan.

Second " Baron, Swindlehurst, Carmichael, Devlin E. B. ; Patterson and Devlin J. A. equal ; Gaudet.

First " Michell and Gamble, equal ; Hanson, Mullin, Boyer, Donahue, White, Ogilvie.

LAW OF GIFTS AND WILLS.—Hon. C. J. Doherty, Professor.

Third Year.—Internoscia and MacDougall, equal ; Hogle and Dunlop, equal; Sheridan, Cox, Walsh, Sawyer.

Second " Barron ; Swindlehurst and Carmichael, equal ; Devlin E.B., Gaudet, Devlin J. A., Landry ; Patterson and Whelan, equal.

First " Mitchell, Boyer, Mullin, Hanson, Gamble ; White and Donahue, equal ; Doucet, Ogilvie.

RAILWAY LAW.—Harry Abbott, B.C.L., Q.C., Prof.

Third Year.—MacDougall, Hogle, Dunlop, Cox, Internoscia, Sawyer, Walsh.

Second " Barron Swindlehurst, Carmichael, Devlin E.B., Patterson, Devlin J. A., Gaudet, Landry.

First " Mitchell, Gamble, Donahue, Hanson, Mullin, White, Boyer, Doucet, Ogilvie.

LAW OF PERSONS.—E. Lafleur, B.A., B.C.L., Prof.

Third " Hogle and Jones, equal ; MacDougall, Cox, Internoscia Sawyer, Dunlop, Walsh, Sheridan.

" Barron ; Carmichael and Swindlehurst, equal ; Devlin E.B., Devlin J.A , Whelan, Patterson Landry, Gaudet, Lamoureux.

First " Mitchell, Boyer, Donahue, White, Hanson, Doucet ; Ogilvie and Mullin, equal ; Fortier and Monty, equal.

FACULTY OF MEDICINE.

HONOURS, MEDALS AND PRIZES.

THE HOLMES MEDAL is awarded to ANDREW ARMOUR ROBERTSON, B.A., of Montreal, Que.

THE FINAL PRIZE is awarded to ALBERT GEORGE NICHOLLS, M.A., of Montreal, Que.

THE PRIMARY PRIZE is awarded to WILLIAM NASSAU KENDRICK, of Spring Valley, Minn.

THE SUTHERLAND MEDAL is awarded to GEORGE DOUGALL ROBINS, B.A., of Montreal, Que.

THE CHEMISTRY PRIZE is awarded to ALLAN DAVIDSON, of Burns, Ont.

PROFESSORS AND DEMONSTRATORS' PRIZES.

THE BOTANY PRIZE is awarded to J. G. MCDOUGALL, of New Glasgow, N.S.

THE CLINICAL CHEMISTRY PRIZE is awarded to A. A. ROBERTSON, B.A., of Montreal, Que.

THE OBSTETRICS PRIZE it awarded to L. Y. MCINTOSH, of Strathmore, Ont.

THE SENIOR ANATOMY PRIZE is awarded to R. O. ROSS, B.A., of Margaree, Ont.

THE JUNIOR ANATOMY PRIZE is awarded to C. B. KEENAN, of Ottawa, Ont.

FACULTY OF VETERINARY SCIENCE.

PRIZES.

Veterinary Medicine and Surgery—Cecil French.
Anatomy—J. C. Hargrave.
Cattle Pathology—Cecil French.
Cynology—A. E. Moore. Chemistry—J. C. Hargrave.
Zoology—H. Dell. Physiology—J. C. Hargrave.
For the best general examination in all subjects—Cecil French.

SCHOLARSHIPS.

For the highest aggregate obtained in first year subjects (Fifty Dollars—Harry Dell.

For the highest aggregate obtained in second year subjects (Fifty Dollars)—J. C. Hargrave.

EXTRA PRIZES.

For the best essay read before the Veterinary Medical Association: 1st—Cecil French. 2nd—A. E. Moore. 3rd—C. J, Mulvey.

For the best essay read before the Society for the Study of Comparative Psychology.

1st—A. E. Moore. 2nd—J. A. Buchan. 3rd—J. H. McLeod.

Next in order of Merit is—J. V. Solandt.

FACULTY OF ARTS.

GRADUATING CLASS.

B.A. Honours in Mathematics and Natural Philosophy.

SMITH, ALISTAIR.—Second Rank Honours.

B.A. Honours in Classics.

DAVIS, DAVID THEODORE.—First Rank Honours and Henry Chapman Gold Medal

B.A. Honours in Natural Science.

WARNER, AGNES.—Second Rank Honours.

B.A. Honours in Mental and Moral Philosophy.

GRAHAM, ANGUS.—First Rank Honours and Prince of Wales Gold Medal.

B.A. Honours in English Language, Literature and History.

MOFFATT, DAVID S.—First Rank Honours and Shakspere Gold Medal.

MACKENZIE, JANE E. F.—First Rank Honours.

DICKSON, SYDNEY.—Second Rank Honours.

B.A. Honours in Semitic Languages..

DAY, FRANK J.—First Rank Honours and the Earl of Aberdeen's Gold Medal and Neil Stewart Prize

Special Certificates for First Rank General Standing.

HARPER, ROBERT M.—Special Certificate and Major Hiram Mills Gold Medal.

OGILVY, ISABELLA.—Special Certificate,

BLACKETT, JOHN W.—Special Certificate.

BARLOW, WALTER S.—Special Certificate.

FRASER, FRANK C.—Special Certificate

THIRD YEAR.

HOWARD, E. EDWIN.—First Rank Honours and Prize in Mathematics and Natural Philosophy; First Rank General Standing.

MACINTOSH, MAJOR H.—First Rank Honours in Classics; First Rank General Standing; Prize in Latin.

TRAVIS, KATHARINE.—First Rank Honours and Prize in Mental and Moral Philosophy; First Rank General Standing; Prize in Zoology.

SUTHERLAND, WILLIAM C.—First Rank Honours in Natural Science; First Rank General Standing; Prize in Zoology.

Radford, Ethel S.—First Rank Honours in Natural Science; First Rank General Standing.

Watson, Rosalind.—First Rank Honours in Natural Science; First Rank General Standing.

Keith, Neil D.—First Rank Honours and Prize in Semitic Languages and Literature; First Rank General Standing; Prize in Greek; Prize in Hebrew; Prize for Collection of Plants.

Burnet, Arthur—First Rank Honours in Classics; Prize in Greek.

Crombie, William J. B.—First Rank Honours and Prize in Mental and Moral Philosophy.

Wallace, James M.—First Rank Honours and Prize in Mental and Moral Philosophy.

Gustin, W. Alfred.—First Rank Honours in Mental and Moral Philosophy.

Young, Henry.—First Rank Honours in Mental and Moral Philosophy.

Rogers, Reginald.—First Rank Honours in Mental Philosophy.

Levy, Aaron.—First Rank Honours in Modern Languages; Prize in German and Prize in French.

Cameron, Susan E.—First Rank Honours in English Language, Literature and History; Prize in English and Rhetoric.

Trenholme, Norman McL.—First Rank Honours and Prize in English Language, Literature and History.

LeRoy, O. E.—First Rank Honours in Natural Science.

Wilson, Margaret.—Second Rank Honours in Modern Languages: First Rank General Standing.

Hickson, James C.—Second Rank Honours in English Language, Literature and History.

Armstrong, L. Ethel.—First Rank General Standing.

Whiteaves, A. Maud.—First Rank General Standing.

THIRD YEAR.

PASSED THE SESSIONAL EXAMINATION.

Howard, Keith; MacIntosh and Travis, equal; Radford and Watson, equal; Wilson; Armstrong (Ethel) and Sutherland, equal; Whiteaves, Craig; Burnet and Wallace, equal; Gustin and Cameron, equal; Crombie; Armstrong (E. N.) and Rogers and Smyth, equal; Hanson and Levy, equal; Hopkins, Fourney; Symmes; Weir and Young (H.), equal; Dyer, LeRoy, Hickson.

SECOND YEAR.

Robertson, J. C.—(Private Tuition).—First Rank Honours and Prize in Mathematics; First Rank General Standing.

Hutchinson, Margaret.—(Collegiate Institute, St. Thomas).—First Rank Honours and Prize in Mathematics.

Ferguson, Wm.—(Prince of Wales College, P.E.I.).—First Rank General Standing; Prize in English; Prize in Classics; Coster Memorial Prize.

Hammond, Elizabeth A.—(Girls' H. S., Montreal.)—First Rank General Standing; Prize in Classics; Prize in Logic; Prize in Botany; Prize in German.

Smiley, Francis C.—(St. Francis Coll.).—First Rank General Standing: Prize in Classics; Prize in French.

Scott, Arthur P.—(Montreal High School).—First Rank General Standing; Prize in Botany.

Cole, Wilfrid G. G.—(Montreal Collegiate Institute).—First Rank General Standing.

Saunders, Frank C.—(Montreal H. S.).—First Rank General Standing.

Campbell, George R.—(Montreal H. S.).—First Rank General Standing.

Archibald, Samuel.—(Montreal H. S.).—First Rank General Standing.

Hurst, I. Ethel.—(Girls' H. S., Montreal).—Prize in English.

Henderson, Grace.—(Misses Symmers' and Smith's School).—Prize in Classics.

Lennon, Walter S.—(Wesleyan Theol. Coll.).—Prize in Logic; Prize in Hebrew.

St. James, Leah.—(McGill Normal School).—Prize in French.

SECOND YEAR.

PASSED THE SESSIONAL EXAMINATION.

Ferguson, Hammond, Smiley, Roberts[illegible], Cole, Saunders, Campbell, Archibald, Scott, Nichols, Hurst, M[illegible]son, Henderson, Hutchinson, Ross, Lennon, Pitcher, Locke, Mitchell, Hill, Schwartz, Gordon, St. James, Pollock, Turner, Bates *s*, Browne *s*, Chalmers *s*, Denoon *s*, Howell *s*, McBurney *s*, McCuaig *s*, MacPhail *s*, Scrimger *s*.

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s.—With supplemental examination in one subject (arranged alphabetically).

FIRST YEAR.

Bruce, John C.—(Huntingdon Academy).—First Rank Honours and Prize in Mathematics.

Mackay, Malcolm—(Montreal Collegiate Institute).—Second Rank Honours and Prize in Mathematics.

Cameron, Mary T.—(Trafalgar Institute).—Second Rank Honours and Prize in Mathematics; First Rank General Standing; Prize in Latin; Prize in German.

Young, Laura A.—(Prince of Wales College, P.E.I.).—First Rank General Standing; Prize in Latin.

Holden, Margaret—(Girls' H.S., St. John, N.B.).—First Rank General Standing.

Mackay, Hector—(Kincardine H.S., Ont.).—First Rank General Standing.

Smith, Annie Louise—(Misses Symmers' and Smith's School).—Prize in English; Prize in French; Prize in Roman History.

Browne, J. G.—(Montreal High School).—Prize in Chemistry.

Wyman, Daniel B.—(Hawkesbury H. S.).—Prize in Hebrew.

McMaster, Andrew R.—(Montreal Collegiate Institute).—Prize in English.

Howard, Campbell—(Montreal Collegiate Institute.)—Prize in Latin.

FIRST YEAR.

PASSED THE SESSIONAL EXAMINATIONS.

Holden, Cameron, Young, Mackay (H.), Steacy, Smith, Galt, Ker, Browne, Wyman (D. B.); Bruce and Mackay (M.), equal; Wyman (H. B.), McLeod, Campbell (R. P.), Saxe, Howard, Ross (A. R.), Doull, Ross (E.), Walbridge, McMaster, Macfarlane, Mallinson, Armstrong: Larmonth and McLean, equal; Ives, Stevenson, Willis, Douglas, Marler, Bickerdike

Gowan *s*, Russel *s*, Stephen *s*.

(*s*) With supplemental examinatiou in one subject (arranged alphabetically).

AWARD OF SCHOLARSHIPS AND EXHIBITIONS, ETC., SEPTEMBER, 1893.

I. Fourth Year.—Anne Molson Prize, Smith (Alistair).

II. Third Year.—Scholarships (tenable for two years).

Mathematical Scholarship.—*Howard, E.
Natural Science Scholarship.—*Wallace, Jas.
Classical and Modern Language Scholarship.—*MacIntosh (Major

III. Second Year.—Exhibitions (tenable for one year).
*Robertson, J. C., Private Tuition.
§§Hurst, Ethel, Montreal Girls' H. S.

IV. First Year.—Higher Entrance and Exhibition Examinations.

Class I. *Mackay, Hector, Kincardine H. S., *Exhibition.*
†† Cameron, Mary T., Trafalgar Institute, *Exhibition.*
* Bruce, John C., Huntingdon Academy, *Exhibition.*
‡ Mackay, Malcolm, Montreal Coll. Institute, *Exhibition.*
§ Larmonth, George E., Montreal H. S., *Exhibition.*
‡‡ Wyman, Daniel B., Hawkesbury H. S., *Exhibition.*

Class II. ** Trenholme, Arthur K., Montreal H. S., *Bursary.*
** Campbell, Roland P., Montreal Coll. Inst., *Bursary.*
Stevenson, James, Montreal Coll. Inst.

* Annual value, $125.—Founder, W. C. McDonald, Esq.
do $120.—Donor, Sir Donald A. Smith.
‡ do $125.—Donor, George Hague, Esq.
†† do $100.—and free tuition, Donor, Sir Donald Smith.
§ do $100.—Founder, Major Mills.
do $ 90.—Founder, Mrs. Jane Redpath.
** do $62.50.—Founder, W. C. McDonald, Esq.

SUPPLEMENTAL EXAMINATIONS.

September 1892.

(a) Sessional,

THIRD YEAR.—Bremner, Dickson (E.H.T.) Lewis, McGregor, McKerracher, Naylor.

SECOND YEAR.—McNaughton, Symmes, Trenholme, Weir.

FIRST YEAR.—Denoon, Ross (A.R.), Scrimger.

(b) Supplemental in one Subject.

SECOND YEAR.—Crombie, Cushing, Hopkins, Levy, Tooke, Seymour, Young (S),

FIRST YEAR.—Hinds, Krause, Locke, Scott.

SESSIONAL EXAMINATIONS, 1894.

McGILL COLLEGE.

GREEK.

B.A. ORDINARY.—*Class I.*—Davis (David T); Blackett and Harper, equal. *Class II.*—Dickson (E. H. T.). *Class III.*—Hanran, Davis (E. A.), Lambly; McGregor and Naylor, equal; MacKeracher, Graham (F. H.): Bickerdike and Lewis and McCoy, equal; Bremner.

THIRD YEAR.—*Class I.*—Burnet and Craig (Wm. W.) and Keith (*Prize*), equal; MacIntosh, Watt. *Class II.*—Cameron and Gustin, equal; Sutherland, Radford. *Class III.*—Weir, Wallace, Young (Henry), Crombie.

SECOND YEAR.—*Class I.*—Ferguson and Hammond and Henderson and Smiley (*Prizes*), equal; Cole, Saunders, Archibald, Campbell, Locke. *Class II*—Molson; Robertson and Ross, equal: Lennon, Howell, Scott, Schwartz, McCuaig.

Class III.—Brown; Gordon and Turner, equal; Pollock; Bates and St. James, equal; Hurst, McMartin Scrimger, Chalmers.

FIRST YEAR.—*Class I.*—Howard (*Prize*), Mackay (H.), Browne, Cameron (*Prize*), Ker; McLeod and Wyman (H. B.), equal. *Class II.*—Smith, Raynes; Larmonth and Ross (A. R.), equal; Bruce and Steacy, equal; McMaster and Trenholme (A. K.) and Willis, equal; Armstrong and Campbell (R. P.), equal; Marler and Wyman (D. B.), equal; Mackay (M.). *Class III.*—Ives and Macfarlane, equal; Saxe, Mallinson; Cunningham and McLean (S.), equal; Russel, Gowan, Doull; Cleland and Douglas, equal; Botterell and Stevenson, equal; Boyce.

LATIN.

B.A. ORDINARY.—*Class I.*—Davis (D. T.), Harper, Dickson (E. H. T.), Hargrave, Blackett. *Class II.*—Ogilvy (Isabella), Craig (Margaret); Bickerdike and Fraser, equal; Graham (F. H.) and Mackenzie, equal; Boyd and Ogilvy (Chas.) and Shaw, equal; Hanran and MacKeracher, equal; Barlow. *Class III.*—Brown, Lambly, Duclos; Harvey and MacVicar equal; Bond, Garrett, Ellicott, Naylor; McCoy and Ireland, eq

THIRD YEAR.—*Class I.*—McIntosh (*Prize*): Armstrong (Ethel) and Travis equal; Craig, Watson, Burnett. *Class II.*—Whiteaves, Wilson. *Class III.*—Cameron, Hopkins; Armstrong (E. N.) and Fourney, equal; Smyth, Symmes, Dyer, Rogers, Levy, Tooke, Hickson.

SECOND YEAR.—*Class I.*—Ferguson (*Prize*), Henderson, (*Prize*); Hammond and Smiley (*Prizes*), equal; Campbell, Saunders, Archibald, Cole, Hurst, Ross, Nicholls. *Class II.*—Lennon, Hill; Locke and Scott, equal; Molson; Gordon and Howell, equal; Robertson and Watson, equal; McCuaig and Pollock, equal: Schwartz: Denoon and Hutchinson and Pitcher, equal. *Class III.*—Brown: Bates and Mitchell, equal; Scrimger; McBurney and Stockwell and Turner, equal; Chalmers and St. James, equal; McMartin and Watters, equal; Krause; Gilmour and McPhail, equal; Hamilton, Hinds.

SECOND YEAR.—(*Latin Prose Composition*).—*Class I.*—Hammond (*Prize*), Ferguson (*Prize*), Smiley (*Prize*), Henderson (*Prize*), Cole, Scott, Archibald: Locke and Saunders, equal. *Class II.*—Robertson, Pollock, Ross, Campbell; Hill and Pitcher, equal; Denoon and Gordon and Hurst and Nicholls and Watson, equal; Molson, Schwartz, McPhail. *Class III.*—McCuaig and McMartin, equal; Howell and Lennon, equal; Mitchell, Hutchinson, Turner, Stockwell, Benny, Krause, Brown, McBurney, St. James, Bates, Scrimger.

First Year.—*Class I.*—Cameron (*Prize*) and Young (*Prize*), equal; Browne (*Prize*) and Holden and Howard (*Prize*) and Smith, equal; McLeod and Steacy, equal; McMaster and Wyman (D. B.), equal; Ker, Galt. *Class II.*—Mackay (H.), Ross (Eliz.), Wyman (H. B.); Macfarlane and Mallinson, equal; Bruce, Mackay (M.); Larmonth and Shaw and Walbridge, equal. *Class III.*—Doull and Stevenson and Trenholme (A. K.), equal; Ross (A. R.); Marler and Saxe, equal; Stephen; Armstrong and Campbell (R. P.), equal; Russel; Bickerdike and Douglas, equal; Heeney; Cleland and Willis, equal; Ives, Gowan; McLean (S.) and Overing, equal; Dover.

ROMAN HISTORY AND LITERATURE.

First Year.—*Class I.*—Smith (A. L.), (*Prize*); Holden and Larmonth and McMaster, equal; Browne; Campbell (R. P.) and Ker, equal; Ross (Eliz.) and McLeod and Mackay (H.) equal; Cameron and Young (L. A.), equal; Howard (C.), Saxe; Galt and Martin and Willis and Wyman (D. B.), equal. *Class II.*—Macfarlane and Mackay (M.), equal; Armstrong and Bickerdike and McLean (S.), equal; Walbridge, Gowan; Mallinson and Ross (A. R.) and Russel and Wyman (H. B.), equal; Myers and Warren, equal. *Class III.*—Coussirat; Cunningham and Douglas, equal; Bruce and Cleland and Dover and Ives and Steacy and Trenholme (A. K.), equal; Schwitzer and Shaw and Stevenson, equal; Doull, Crozier, Overing, Stephen; Botterell (J. E.) and Boyce, equal; Hill.

MENTAL AND MORAL PHILOSOPHY.

B.A. Ordinary.—(*Moral Philosophy*).—*Class I.*—Graham (A.), Walker; Ogilvy (I.) and Warner, equal; Day, Moffat; Barlow and Dickson (E.) and Kelly, equal; Fraser; Davis (E. A.) and Ogilvy (C.) and Shaw, equal; Harper, Blackett; Brown (J. L.) and Hanran and Naylor and Sing equal. *Class II.*—Ball and Leitch (H.) and Stewart, equal; MacKera cher and Peever, equal; Bremner and Craig, equal; Harnwell, MacVicar, Brown (J.) and Duclos, equal; Graham (F.) and MacGregor, equal; Bickerdike and Bond and Calvert and Harvey, equal. *Class III.*—Hargrave and Morrow, equal; Murray and Dickson (S. M.), equal; McCoy Garrett; Ireland and Mathers, equal; Boyd and Lewis, equal; Lambly Boshart, Jamieson, McCuaig.

Third Year.—(*Mental Philosophy*).—*Class I.*—Crombie (W.) and Howard and Radford and Sutherland and Travis and Wallace and Watt, equal Watson and Young (H.), equal; Trenholme, Smyth, Rogers, Hanson. Keefer and Keith, equal; Fish; Gustin and Milliken, equal; Hickson and Hopkins and Wilson (A.), equal; Armstrong (E). *Class II.*—McNaughton, Weir, Young (S. Boshart and Symmes and Wilson (W. equal; Seller, Humphrey; Brown and Dyer, equal. *Class III.*—Fraser

and McAmmond and McEwan, equal ; Mason and Mills, equal ; Beamish and Extence and Harnwell, equal ; LeRoy, Tooke, Culp, Leitch (F) *Prizes :* Travis ; Crombie and Wallace.

SECOND YEAR.—(*Logic*).—*Class I.*—Lennon, Scott, Archibald, Campbell : Robertson and Saunders, equal : MacGregor and Schwartz, equal : *Belton and *Brace and Ferguson, equal ; Hammond and Watters, equal ; Cole Molson ; *Harnwell and *Miller and Pitcher and St. James, equal ; Smiley ; Hurst and MacPhail and Nicholls, equal ; Eagleson and Henderson and Locke, equal ; Mitchell and Scrimger, equal. *Class II.*—Chalmers ; Howell and McCuaig and Stockwell, equal ; *McAteer, Hutchinson and Patterson, equal ; Bates and Gordon and Ross, equal *Pollock (A. F.) ; *Horsey and Watson, equal ; Denoon and Hill and McMartin, equal ; Hinds ; *Keefer and *Mount, equal ; McBurney and Pollock (T. J.) and *Smith (W. A.), equal. *Class III.*—*Beamish and *Benny and *Leitch, equal ; Krause and *Seller, equal ; Kennedy, Brown *Smith (G. E.), Hamilton ; *McAmmond and Pinder, equal ; *Smith (H. L.) and Turner, equal ; *Wright, Watt, *Kelly, *Fish; Graham and *Culp, equal.

EUROPEAN HISTORY.

B.A. ORDINARY.—*Class I.*—Barlow, Craig, Mackenzie, Moffat, Harper. *Class II.*—Ogilvy ; Boyd and Fraser, equal ; Stewart ; Lewis and Shaw, equal ; Dickson (E. F.) ; Hanran and Harvey, equal ; Duclos, Davis (E.), Bickerdike. *Class III.*—Dickson (S.); Bond and Ireland and *Ashforth, equal; Graham and MacKeracher, equal; Garrett; Bremner and MacVicar, equal ; Lambly and Hargreave, equal.

ENGLISH LITERATURE AND RHETORIC.

THIRD YEAR.—*Class I.*—Cameron (*Prize*) ; Howard and Trenholme equal ; MacIntosh. *Class II.*—Armstrong (E. N.), Travis, Hickson, LeRoy ; Hopkins and Tooke, equal ; Sutherland ; Dyer and Browne equal ; Cushing. *Class III.*—Weir, Symmes, Fourney, Hanson.

ENGLISH LITERATURE AND HISTORY.

SECOND YEAR.—*Class I.*—*Walker, Hurst (*Prize*), Ferguson (*Prize*) ; Campbell and Henderson, equal ; *MacGregor and Scott, equal ; Mitchell and Smiley, equal ; Hammond, Nicholls, Archibald ; Pitcher and Robertson and Saunders, equal ; Scrimger ; Cole and Hutchinson, equal ; Locke ; *Norris and Schwartz, equal. *Class II.*—*Leitch, Molson ; Lennon and Ross, equal ; Hill, St. James, Gordon, Turner, *Wilson. *Class III.*—Howell, Hamilton, Pollock, Chalmers, McMartin.

ENGLISH LITERATURE.

FIRST YEAR.—*Class I.*—Smith (*Prize*), McMaster (*Prize*); Holden and Ross (E.), equal ; Galt, Campbell (R. P.), Young, Wyman (H. B.), Mackay (M.), Overing. *Class II.*—Russel, Cleland ; MacKay (H.) and Meyer and

Ross (A. R.) equal; Browne; Harrington and Macfarlane and Walbridge, equal; Willis; Howard and Shaw, equal; Ker. and Cameron, equal; *Class III.*—Mallinson and McLeod and Steacy, equal; Bruce and *Stuart, equal; *Douglas and Larmouth and McLean (S.), equal, Bickerdike and Doull and Trenholme and Wyman (D. B.), equal; Armstrong and Ives and Saxe, equal; Stevenson, Marler, Stephen; Ferguson and *Pollock, equal.

MECHANICS AND HYDROSTATICS.

B.A.—*Class I.*—Dickson (T.), Harper. *Class II.*—Ogilvy (Isa), Stewart, Garrett, Barlow, Harvey. *Class III.*—Blacket, Naylor, Ogilvy (C.), Duclos, Hanran, Hargrave, Ireland; Bremner and Craig, equal; Shaw; Bond and McGregor, equal; Brown, McCoy, Bickerdike.

THIRD YEAR.—*Class I.*—Howard, Whiteaves, Rogers; Crombie and Armstrong (L. E.), equal. *Class II.*—Smyth, Fourney; Armstrong (E. N.) and Levy, equal; Hopkins, Travis, Hanson. *Class III.*—Craig, Tooke; Le Roy and Symmes and Fraser (H. A.), equal; Radford, Dyer, Trenholme, McNaughton, Hickson.

ASTRONOMY AND OPTICS.

B.A.—*Class I.*—Smith, Blacket, Boyd, Duclos, Barlow; Dickson (T.) and Fraser (F. C.) and Ogilvy (Chs.), equal. *Class II.*—Harvey; Hanran and Harper, equal; Stewart, Garrett. *Class III.*—Brown, McGregor, Bond, McCoy, Bickerdike, Ireland.

THIRD YEAR.—*Class I.*—Howard, Crombie, Fourney, Craig. *Class II.*—Smyth; Dyer and Symmes, equal; Hanson and Hopkins and McNaughton, equal. *Class III.*—Rogers, Hickson, Trenholme, Levy.

EXPERIMENTAL PHYSICS.

B.A.—*Class I.*—Smith; *Class III.*—McVicar (R. M.).

THIRD YEAR.—*Class I.*—Howard.

GEOMETRY AND ARITHMETIC.

SECOND YEAR.—*Class I.*—Robertson, Hutchinson, Cole, Molson, Ferguson; Archibald and Sanders, equal. *Class II.*—Hurst, Ross, Campbell, Hammond, Scott; Gordon and Smiley and McCuaig and Pitcher, equal; Lennon, Brown, Nichols, Watson, Hill. *Class III.*—Schwartz, Watters, Locke; Chalmers and St. James, equal; Pollock, Scrimger, Bates; McMartin and Henderson, equal; Mitchell; McBurney and Macphail, equal; Denoon; Moore and Turner, equal; Stockwell, Benny; Howell and Hinds, equal; Hamilton, Krause.

FIRST YEAR.—*Class I.*—Bruce, McKay (H.); Holden and Macgregor and Mackay (M.) and Steacy, equal; McLeod and Saxe, equal; Walbridge, Cameron, Wyman (D. B.), Campbell (R. P.); Harrington and Galt, equal. *Class*

II.—Doull; Meyer and Boyce, equal; Douglas; Brown and Ross (E), and Russel and Smith, equal; Ker and Shaw and Young, equal; McLean and Stephen, equal. *Class III.*—Gowan; Ross (A. R.) and Wyman (H. B.), equal; Armstrong and Macfarlane, equal; Trenholme; Mallinson and Stevenson, equal; Cunningham and Larmonth, equal; Howard, Willis, Ives, Overing, Hill, Bickerdike, McMaster, Botterell, Crozier, Marler and Warren, equal; Ziegler.

TRIGONOMETRY AND ALGEBRA.

SECOND YEAR.—*Class I.*—Robertson, Hutchinson, Ross; Molson and Stockwell equal. *Class II.*—Saunders, Hammond, Ferguson; Hurst and Smiley, equal; Nicholls; Cole and McCuaig, equal; Gordon and Schwartz equal. *Class III.*—Archibald and Howell, equal; Bates; Lennon and Pitcher, equal; Brown and Pollock, equal; Henderson; Campbell and Mitchell and Scott, equal; Hill; Chalmers and Turner, equal; Locke and Watters, equal; Benny and St. James, equal; Hinds; McBurney and Moore, equal; Macphail; Denoon and McMartin, equal.

FIRST YEAR.—*Class I.*—Saxe; Cameron and Macgregor, equal; Mackay (M.), Holden, Steacy; Ker and Wyman (H.), equal; Bruce and Wyman (D. B.), equal; Mackay (H). *Class II.*—Stevenson, Galt, Young, Browne, Walbridge. *Class III.*—Campbell (R. P.) and Ross (A. R.) and Boyce, equal; McLean and Doull, equal; Mallinson; Harrington and Ives; equal; Ross (E.), Howard, Russell, Larmonth, Macfarlane, Smith, Cunningham and McMaster and Marler and Trenholme and Willis, equal; Meyer; Armstrong and Stephen, equal; McLeod, Gowan Bickerdike, Botterell, Douglas, Hill.

HONOUR EXAMINATION IN MATHEMATICS AND NATURAL PHYLOSOPHY.

B.A.—*Second Rank Honours.*—Smith (Alistair.)

THIRD YEAR.—*First Rank Honours.*—Howard.

SECOND YEAR.—*First Rank Honours.*—Robertson; Hutchinson.

FIRST YEAR.—*First Rank Honours.*—Bruce.—*Second Rank Honours.*—Mackay (Malcolm); Cameron (M. T.)

FRENCH.

FOURTH YEAR.—*Class I.*—Harper, Ogilvy (I.), Blackett. Ogilvy (Chs.), Bickerdike, Boyd, Shaw. *Class II.*—Hargrave, Fraser, Bond; Barlow and Duclos equal; Craig. *Class III.*—Brown, Mackenzie, Lewis.

THIRD YEAR.—*Class I.*—Johnson and Wilson, equal; MacGregor, Radford, Levy (*prize*); Armstrong (E.) and Watson equal; Craig. *Class II.*—Burnet and Whiteaves, equal; Armstrong (E. N.), Gustin. *Class III.*—Fourney, Smyth, Cushing.

SECOND YEAR.—*Class I.*—Smiley (*prize*), Benny, St. James (*prize*); Mitchell, Henderson; Molson and Ross, equal; Cole and Fergusson, equal; Saunders; Archibald and Hinds, equal; Campbell, Scott; Hurst and Schwartz, equal; Nichols; Scrimger and Stuart, equal; Hammond and Locke and Watson, equal. *Class II.*—Hill and Pitcher, equal; McCuaig, Waters, Turner; McMartin and Pollock, equal; Hutchinson, Krause, Denoon; Brown and McBurney, equal; Stockwell. *Class III.*—MacPhail, Kennedy, Chalmers, Walker, Moore, Pinder, Graham.

FIRST YEAR.—*Class I.*—Smith *prize*), Cameron, Holden; Doull and Wyman, equal; Ker, Ross (A.R.), Coussirat, Bruce, Howard. *Class II.*—Young, McFarlane, Galt, Mackay (H.), Campbell, Walbridge, Mackay (M). *Class III.*—Browne, Shaw, Stephen, Ives, McMaster, Armstrong, Saxe, Bickerdike, Stevenson, Warren, Ross (E.), Marler, Harrington; Cunningham, equal; Botterell and Larmont and Russell equal.

GERMAN.

THIRD YEAR.—*Class I.*—Levy (*Prize*), Wilson, Whiteaves, Armstrong. *Class II.*—*Johnson.

SECOND YEAR.—*Class I.*—Hammond (*Prize*); Mitchell and Hurst, equal; Nicholls, Locke, Hutchinson, Robertson; Krause and Hill, equal; Pitcher and Denoon and Watson, equal. *Class II.*—Gordon and Howell, equal; Macphail, McBurney. *Class III.*—Pinder, Graham.*

* Partial.

FIRST YEAR.—*Class I.*—Cameron (*Prize*); Pattison (B. A.), and Holden, equal; Doull, Young, Galt. *Class II.*—Walbridge, Bickerdike, Shaw, Ross, Stephen, Johnson. *Class III.*—Warren, Willis, Dover, Hill.

HEBREW

B.A. ORDINARY.—*Class I.*—Day (F. J.). *Class II.*—Naylor, Bremner. *Class III.*—Davis, MacGregor.

THIRD YEAR.—*Class I.*—Keith (*Prize*), Ball. *Class II.*—Wallace. *Class III.*—Brown (J. L.).

SECOND YEAR.—*Class I.*—Bates, Lennon (*Prize*). *Class II.*—Milliken, Humphrey. *Class III.*—Brown (Th.) and Peever and Mount, equal; Sing, Extence, Mason, Fairbairn, Jackson, Jamieson.

FIRST YEAR.—*Class I.*—Belton, Internoscia (B. A.), Wyman (D. B.) (*Prize*), Pollock; Stacy and Cleland, equal; McLeod (D. M.). *Class II.*—Ferguson (H.) and Horsey, equal; Smith; McAteer and Kelly, equal; Fraser and Eagleson and Boyce, equal; Watt (J. C.) and Leitch, equal; Genova, Mair, Douglas; Mallinson and McLean, equal. *Class III.*—Young (S.), Wilson, Ziegler, Shaw; Menançon and Brace, equal; Crozier and Overing, equal; Gourlay, Gowan, Young (H.), Biron.

HONOUR EXAMINATIONS IN SEMITIC LANGUAGES AND LITRATURE.

B. A.—*First Rank Honours and Governor General's Medal.*—F. J. Day.

THIRD YEAR.—*First Rank Honours.*—N. D. Keith.

The Neil Stewart prize.—F. J. Day.

GEOLOGY AND MINERALOGY.

FOURTH YEAR.—*Class I.*—Barlow, Craig, Fraser, Ogilvy (I.). *Class II.*—Naylor; MacGregor and Blacket and Sing, equal; Graham (A.) and Warner, equal; Brown (J.); Harvey and McConnell, equal; Shaw, Stewart, Boyd, Graham (F. H.), Duclos. Fairbairn, Ogilvy (C.); Leitch and Peever, equal; Bethell and Davis (E. A.), equal; Garett and Mathers, equal; Hanran and Hargrave, equal; Lambly. *Class III.*—Ireland, MacKer acher, Bremner, Calvert, Ellicott; Murray and Lewis, equal.

ZOOLOGY.

THIRD YEAR.—*Class I.*—Travis (*Prize*), Sutherland (*Prize*), Keith, Armstrong (Ethel); McIntosh and *Brace, equal; Cameron and Wilson, equal Radford and Wallace, equal; Whiteaves. *Class II.*—Le Roy, Watson McNaughton, Gustin, *Smith (W. A.), Cushing; McAteer and Young (S.), equal; Rogers, Armstrong (Edgar). *Class III.*—*Belton; Burnet and McEwan, equal; Eagleson; Crombie and Fourney, equal; Smith (S. E.), Young (H.), Weir, Smith (H. L.), *Seller, *Wilson (A. C.); Pater; son and Walker, equal.

BOTANY.

THIRD YEAR.—*Class I.*—Pattison.

SECOND YEAR.—*Class I.*—Scott (*Prize*), Hammond (*Prize*), Smiley, Campbell, Cole; Nicholls and Hill, equal; Ferguson, Lennon, Mitchell, Henderson, Locke; Watson and Pitcher, equal. *Class II.*—Bates, McMartin,* McCuaig; St. James and Archibald, equal; Stockwell and Watters, equal; Scrimger, Gordon, Chalmers; Molson and Schwartz, equal; Krause and Macphail and Pollock and Ross, equal; Saunders and McCallum, equal; Denoon. *Class III.*—Benny,* Brown, Hamilton,* Hinds, Hurst, McBurney, Turner, Pinder.

CHEMISTRY.

THIRD YEAR (Additional)—*Class II.*—Watson.

FIRST YEAR.—*Class I.*—Pattison (B. A.), Browne (J. G.) (Prize), Boyce, Harrington. *Class II.*—Saxe; Bruce and Steacy, equal; Ross (A. R.), Young; Mackay (M.) and Wyman (D. B.), equal; Campbell, Mackay (H.), Ives. Ross (E.); Armstrong and Douglas and Mallinson and Smith, equal. *Class III.*—Ker and McLean and Wyman (H. B.), equal; Doull; McLeod and Holden, equal; Milliken, Cunningham, Cameron; Galt and Gowan

equal; Howard and McMaster, equal; Marler and Stuart, equal; Dover and Stevenson, equal; Bickerdike, Larmonth; Macfarlane and Overing, equal; Oke and Walbridge and Wilson, equal Brown (T.) and Coussirat, equal; Willis.

WICKSTEED SILVER MEDAL FOR PHYSICAL CULTURE.

FOURTH YEAR.—DICKSON, SYDNEY M.

DONALDA PRIZES FOR PHYSICAL CULTURE.

Graduating Class.—Warner, Agnes.
Undergraduates.—Travis, Katharine.

MORRIN COLLEGE.

B.A. ORDINARY.

GREEK.—*Class I.*—Fraser.

LATIN.—*Class I.*—Fraser.

MECHANICS AND HYDROSTATICS.—*Class III.*—Fraser.

ASTRONOMY AND OPTICS.—*Class II.*—Fraser.

MORAL PHILOSOPHY.—*Class I.*—Fraser.

FRENCH.—*Class III.*—Fraser.

INTERMEDIATE.

GREEK.—*Class I.*—Langlois. *Class III.*—Taylor, Drum

LATIN.—*Class I.*—Langlois. *Class II.*—McWilliam. *Class III.*—Taylor, Drum, Bishop.

LATIN PROSE.—*Class II.*—Langlois. *Class III.*—Drum, McWilliam, Taylor.

TRIGONOMETRY AND ALGEBRA.—*Class I.*—Langlois. *Class II.*—Taylor. *Class III.*—MacWilliam, Bishop.

GEOMETRY AND ARITHMETIC.—*Class I.*—Langlois. *Class II.*—McWilliam. *Class III.*—Taylor, Drum, Bishop.

LOGIC.—*Class I.*—McWilliam, Langlois. *Class II.*—None. *Class III.*—Taylor, Bishop.

ENGLISH LITERATURE AND HISTORY.—*Class I.*—McWilliam. *Class II.*—Langlois. *Class III.*—Drum.

FRENCH.—*Class I.*—Taylor, McWilliams, Langlois. *Class III.*—Drum, Bishop.

GERMAN.—*Class I.*—McWilliam.

ST. FRANCIS COLLEGE.

INTERMEDIATE.

GREEK.—*Class II.*—Paterson. *Class III.*—Coburn, Vaudry.

LATIN.—*Class II.*—Paterson. *Class III.*—Coburn and Vaudry.

LATIN PROSE COMPOSITION.—*Class II.*—Paterson. *Class III.*—Coburn.

TRIGONOMETRY AND ALGEBRA.—*Class I.*—Paterson. *Class III.*—Vaudry, Coburn.
GEOMETRY AND ARITHMETIC.—*Class II.*—Paterson. *Class III.*—Coburn, Vaudry.
LOGIC.—*Class I.*—Coburn. *Class II.*—Paterson. *Class III.*—Vaudry.
ENGLISH LITERATURE AND HISTORY.—*Class III.*—Vaudry, Paterson.
FRENCH.—*Class III.*—Coburn, Vaudry Paterson.

STANSTEAD WESLEYAN COLLEGE.

INTERMEDIATE.

GREEK.—*Class III.*—Ryan.
LATIN.—*Class II.*—Rugg, Howard ; Bryant and Ryan, equal.
LATIN PROSE COMPOSITION.—*Class II.*—Bryant and Rugg, equal ; Howard, Ryan
TRIGONOMETRY AND ALGEBRA.—*Class II.*—Rugg, Bryant, Howard. *Class III.*—Ryan.
GEOMETRY AND ARITHMETIC.—*Class I.*—Bryant, Rugg. *Class II.*—Ryan, Howard.
LOGIC.—*Class I.*—Rugg. *Class II.*—Howard. *Class III.*—Bryant, Ryan.
ENGLISH LITERATURE AND HISTORY.—*Class II.*—Bryant. *Class III.*—Howard.
FRENCH.—*Class I.*—Bryant. *Class II.*—Rugg. *Class III.*—Howard, Ryan.
GERMAN.—*Class I.*—Rugg, Bryant, Howard.

FIRST YEAR.

GREEK.—*Class II.*—McNaughton. *Class III.*—Whitcher, DuBoyce, Vaughan.
LATIN.—*Class I.* McNaughton. *Class. II*—Terrill and Whitcher, equal. *Class III.*—DuBoyce and Vaughan, equal ; Nunns.
TRIGONOMETRY AND ALGEBRA.—*Class II.*—Whitcher. McNaughton. *Class III.*—Nunns, Terrill, DuBoyce, Van Vleet, Vaughan.
GEOMETRY AND ARITHMETIC.—*Class I.*—McNaughton. *Class III.*—Vaughan Nunns, DuBoyce, Whitcher, Van Vleet.
GERMAN.—*Class III.*—Terrill, Van Vleet.
FRENCH.—*Class III.*—DuBoyce, MacNaughton.
CHEMISTRY.—*Class III.*—Whitcher, Vaughan.
ROMAN HISTORY.—*Class II.*—DuBoyce and McNaughton and Terrill, equal. *Class III*—Nunns and Vaughan, equal ; Whitcher.

FACULTY OF APPLIED SCIENCE.

FOURTH YEAR. (GRADUATING CLASS.)

Henry Martyn Mackay., B.A.—Governor General's Medal; British Association Exhibition of $50.00 Honours in Theory of Structures, Hydraulics, Designing and Geodesy; Prize for Astonomical Work.

Alexander Scott Dawson.—Prize for Summer Essay ($25.00); Honours in Theory of Structures and Hydraulics; Price for Astronomical Work.

Frank Henry Fitcher.—Honours in Thermodynamics and Dynamics of Machinery, Prize for Summer Essay.

Alfred Collyer.—Prize of a Weston Voltmeter ($75.00), for Work in Electrical Laboratory.

Edward Darling.—British Association Medal; Honours in Machine Design, Mechanical Drawing, and Designing, Prize for Summer Essay.

William Archibald Duff.—Honours and Professor's Prize in Thermodynamics; Honours in Dynamics and Machinery and Designing.

Arthur Langley Mudge.—Honours in Designing.

James Shearer Costigan.—Honours in Designing, Prize for Summer Essay

John Herbert Larmonth.—Prize for Summer Essay.

Arthur Augustus Cole, B.A.—Honours in Designing, Assaying and Metallurgy; First Rank Honours in Natural Science.

Orton Edward Simpson Whitesidl.—Honours in Metallurgy and Assaying; First Rank Honours in Natural Science, Prize for Summer Essay ($25).

Herbert Molson.—Honours in Metallurgy, Chemistry and Mineralogy.

Alexander Brodie.—Honours in Chemistry, Metallurgy and Mineralogy.

THIRD YEAR.

Carter, William Frederick.—Prizes for Theory of Structures and Work in Testing Laboratory, Prize for Levelling.

Dobson, Gilbert Sherwood, B.A.—Prize for Work in Testing Laboratory.

McDunnough, Ralph Baylis.—Scott Exhibition of $60; Prizes for Mathematics and Experimental Physics. Machine Design, Dynamics of Machinery Mechanical Drawing.

King, Robert Owen.—Prizes for Mathematics and Work in Physical Laboratory.

Currie, William.—Prizes for Theory of Structures, Mathematics, and Work in Testing Laboratory, and Dynamics of Machinery.

Baker, Hugh C.—Prizes for Work in Physical Laboratory and for Shopwork.

Robinson, Sampson Paul.—Prize for Experimental Physics.

Hart, Orobio Chandler.—Prizes for Geology and Mineralogy, and Mining. Logan prize for Collection of Insects.

Gwillim, John Cole.—Prizes for Theoretical and Practical Chemistry, and Drawing (Mining).

Wilkin, Francis Alfred.—Prize for Mechanism, Prize for Transit Work.

Moodie, Kenneth.—Prize for Shopwork and Drysdale Prize.

PASSED THE SESSIONAL EXAMINATIONS.

CIVIL ENGINEERING.

Carter, William Frederick, Cowansville, Que.
Dobson, Gilbert Sherwood, B.A., Dorchester, N.B.

ELECTRICAL ENGINEERING.

King, Robert Owen, Montreal.
McDunnough, Ralph Baylis, Montreal.
*Becket, Frederick Mark, Montreal.
Scott, Alfred, Port Hope, Ont.

MECHANICAL ENGINEERING.

Currrie, William, Montreal.
Baker, Hugh C., Montreal.
Robins, Sampson Paul, Montreal.
Griffin, Michael Edward, Georgetown, P.E.I
Boright, George Nelson, Sutton, Que
Greig, Alexander R., Montreal. } equal.
Angus, William Forrest, Montreal. }
McDougall, George Dewar, Amherst, N.S.
Nivin, Thomas Francis, Montreal.
Moodie, Kenneth, Chesterville, Ont.
McNaughton, Peter, Huntingdon, Que.
Primrose, John, Pictou, N.S
Rogers, Frank Doughty, Montreal.

MINING ENGINEERING.

Hart, Orobio Chandler, Cowansville, Que.
Wilkin, Francis Alfred, Calgary, N.W.T.
Gwillim, John Cole, Winnipeg, Man.
* Askwith, William Robert, New Edinburgh, Ont.

SECOND YEAR.

Stewart, Robert Holden.—Prizes for Mathematics, Physical Laboratory Work Descriptive Geometry, Mapping (Mining), Surveying, and Fieldwork (Surveying).
Chase, Harry A.—Prize of $40 for Entrance Examination.
Kenny, Thomas Frederick.—Prize for Experimental Physics.
Killaly, Hamilton McM., B.A.—Prizes for Mapping (Civil) and Surveying.
Green, Joseph Samuel Raoul.—Prizes for Zoology, English and French.
Courtice, Francis E.—Prizes for German and Mechanism.
Gill, James Lester Willis.—Prizes for Shopwork and Mechanism, Wicksteed Bronz Medal for Physical Culture.

* Supplemental in one subject.

PASSED THE SESSIONAL EXAMINATIONS.

CIVIL ENGINEERING.

Hare, George Gray, St. John, N.B.
Killaly, Hamilton McM., Morrisburg, Ont.
Reinhardt, Carl, Montreal.
* Denis, Théophile, Montreal.
* Ogilvie, William Morley, Cumming's Bridge, Ont.

ELECTRICAL ENGINEERING.

Chase, Harry A., Kentville, N.S.
Jaquays, Homer Morton, B.A., Montreal.
Wright, Charles Harvey, Renfrew, Ont.
Dougall, George Matile, Montreal.
* Howe, Ralph Edwin, B.A., Hatley, Q.

MECHANICAL ENGINEERING.

Gill, James Lester Willis, Little York, P.E.I.
Courtice, Francis Edward, Port Perry, Ont.
Kenny, Thomas Frederick, Ottawa, Ont.
Hunter, John William, Kingston, Ont.
Clarke, Ernest Randolph, Stratford, Ont.
McDougall, William, Ormstown, Que.
Smaill, Albert Edward, Montreal.
White, Frank Herbert, Montreal.
Walkem, George Alexander, Kingston, Ont.
* Rutherford, Gordon Scott, Montreal.

MINING ENGINEERING.

Stewart, Robert Holden, Montreal.
Green, Joseph Samuel Raoul, Montreal.
Mussen, Horace W., Aurora, Ont.
* Archibald, William Munroe, Truro, N.S.
* Webb, William Morton, Petrolia, Ont.
* Metcalfe, Thomas Henry, Montreal.
Rutherford, Forrest, Montreal.

PRACTICAL CHEMISTRY.

McCallum, Arthur, Maxwell, Ont.

Supplemental in one subject.

FIRST YEAR.

Stovel, Russell Wellesley.—Prizes for Descriptive Geometry, Mathematics, and Work in Mathematical Laboratory.
Newcombe, Avard B., Matriculation Prize of $22.50.
Turnbull, John Moncrieff.—Matriculation Prize of $22.50.
Guthrie, Norman Gregor. Prizes for Theoretical and Practical Chemistry English and German.
Staples, Clark.—Prize for Freehand Drawing.
Thompson, Frederick William.—Fleet Prize for Shopwork.
Macdonald, James E.—Matriculation Prize of $15.
Hillary, George M.—Matriculation Prize of $10.

PASSED THE SESSIONAL EXAMINATIONS.

Stovel, Russell Wellesley, Toronto, Ont.
Thomson, Clarence, Montreal.
Guthrie, Norman Gregor, Guelph, Ont.
Turnbull, John Moncrieff, Montreal.
MacKinnon, George Douglas, Charlottetown, P.E.I.
Macdonald, James Ewan, Providence, R.I., U.S.A.
Thomson, Henry Nellis, Quebec, Que.
MacLeod, George Roderick, Uigg, P.E.I.
Thomson, Frederick William, Coaticook, Que.
Burnham, Harold Bostwick, Peterboro, Ont.
Macdonald, Peter William, West Bay, N.S.
Connal, William Ferguson, Peterboro, Ont.
Travis, Berton Cecil, Hampton, N.B.
Bell, John Wainwright, Montreal.
Angel, Frederick W., St. John's, Newfoundland.
Davidson, Shirley, Montreal.
Hillary, George, M., Whitby, Ont.
Ross, John Kenneth, Montreal.
*Mackie, James D., Kingston Station, Ont.
Pitcher, Norman Charles, Montreal.
Walters, Morley, Hull, Que.
Symmes, Howard Church, Aylmer, Ont.
*Newcombe, Avard Borden, Lakeville, N.S.
Haycock, Richard Lafontaine, Ottawa, Ont.
Blair, David Edward, Chicoutimi, Que.
Staples, Clark, Balsam Lake, Ont.
*Suter, Robert William, Carleton Place, Ont.
*Packard, Francis Lucius, Montreal.
Beatty, David Herbert, Sarnia, Ont.

*Supplemental in one subject.

*McKibbin, Frederick William James, Peterboro, Ont.
Yorston, Louis, Pictou, N.S.
Sise, Charles Fleetford, Montreal.
*Kennedy, Lindsay Russel, Pembroke, Ont.
*Edward, John R., Outremont, Que.
*Dougall, Ralph, Montreal
*Reid, Robert G., Montreal.
*Archibald, Harry P., Antigonish, N.S.
*Bovey, Edward Palk, Torquay, England.
*Macbean, Stanley Lorne, Montreal.
*Desbarats, Charles Henry Hullett, Montreal.

STANDING IN THE SEVERAL SUBJECTS.

ENGLISH.

SECOND YEAR.—*Class I.*—Green, Hare, Mackie; Dougall (G.) and Webb and Courtice and Stewart, equal; McDougall and McLaren, equal; Chase. *Class II.*—Mussen and McCallum and Balfour, equal; Bayfield; Smaill and Wright, equal; Clarke and Kenny, equal. *Class III.*—Gill and White, equal; Archibald, Metcalfe, Denis, Ferguson, Walkem, Sise, Alley, Reinhardt; Rutherford (G.) and Hunter, equal; Ogilvie.

FIRST YEAR.—*Class I.*—Guthrie, Macleod, Suter, Thomson (C.), Stovel. *Class II.*—Davidson and Macdonald (J. E.) and Craig* and Packard, equal; Burnham, Staples, Thomson (H. N.); Angel and McBean, equal. *Class III.*—Bovey, Turnbull; Travis and Ross, equal; Connal; Bell (J. W.), and Edward and McKinnon, equal; Drinkwater and Macdonald (P. W.), equal; Hillary and Thompson (F. W.), equal; Archibald, Campbell, Colson; Newcombe and Yorston, equal; Beatty and Symmes, equal; Pitcher and May and Simpson, equal; Paradis and Reaves* and Reid, equal; Finnie, Kennedy* equal; McKibbin and Walters,* equal; Blair, Dougall and Mitchell (N. S.)* and Desbarats, equal; Holland.

FRENCH.

SECOND YEAR.—*Class I.*—Green, Denis, Gill, Wright, Hare. *Class II.*—Chase, Metcalfe, White (F. H.), Clarke; Dufresne and Webb, equal; Smaill. *Class III.*—Bayfield, Rutherford (G. S.), Balfour, Rutherford (S. F.), Reinhardt, Alley.

FIRST YEAR.—*Class I.*—Desbarats, Thomson (C.) *Class II.*—Thomson (H. N.). *Class III.*—Bell (J. W.) and Lacroix, equal; Stovel, Macleod, Ross, Blair, Thompson (F.); Connal and Edward, equal; Packard; Colson and Turnbull, equal; McKinnon; Macbean and Macdonald (P. W.), equal; Corriveau and Pitcher, equal; Symmes.

GERMAN.

SECOND YEAR.—*Class I.*—Courtice, McCallum, Kenny. *Class II.*—Hunter, McDougall, McLaren, Walkem. *Class III.*—Mussen, Buchanan, Ferguson, Bishop, Olive, Ogilvy, Archibald.

*Supplemental in Dictation.

First Year.—*Class I.*—Guthrie, Burnham, Aylmer, Macdonald (J. E.), Hillary, Travis. *Class II.*—Suter, Angel. *Class III.*—Beatty, Craig; Campbell and Walters, equal; May, Yorston; Simpson and Archibald, equal; Staples and Finnie, equal; Vickerson, Kennedy, Mitchell (N. C.), Dougall (R.), Bovey, Holland, Reid.

CHEMISTRY.

First Year.—*Class I.*—Guthrie, Thomson (C.), Turnbull. *Class II.*—McKinnon, Thomson (H. N.); MacDonald (P. W.) and Macleod and Ross, equal; Stovel and Thompson (F. W.), equal; Burnham and Macdonald (J. E.), equal; Archibald; Haycock and Hillary, equal; Newcombe and Pitcher, equal; Connal and Dougall (R.), equal; Davidson, Bell (J. W.), Travis, Edward. *Class III.*—Blair; Angel and Symmes, equal; Walters; Packard and Suter, equal; Bovey and Yorston, equal; Aylmer and Mitchell (N. S.), equal; Desbarats; Beatty and Drinkwater and Macbean and Staples, equal; McRae and Reaves, equal; Colson and McKibbin, equal.

PRACTICAL CHEMISTRY.

First Year.—*Class I.*—Grant and Guthrie, equal; Thompson (F. W.); Bell (J. W.) and Thomson (H. N.) and Turnbull, equal; Paradis; Angel and Bovey and Connal and Macdonald (J. E.) and Macdonald (P. W.) and Ross and Stovel, equal; Symmes, Aylmer; Davidson and Hillary and McKinnon and MacLeod and Pitcher and Simpson and Suter, equal MacKenzie; Burnham and Campbell and Desbarats and Newcombe and Thomson (C.) and Walters, equal. *Class II.*—Drinkwater and Haycock and Vickerson, equal; Travis, Staples, Barber, Finnie; Dougall (R.), and Packard and Reaves, equal; Archibald and Macbean, equal; Bell (R. A. S.) and Ewan, equal; Yorston; Gisborne and McKibbin, equal; Lacroix. *Class III.*—Corriveau and Edward, equal; Kennedy and May, equal; Mitchell (N. S.); Blair and McRae, equal; Craig, Beatty, Mitchell (N. C.).

MATHEMATICS.

Third Year.—*Class I.*—Currie, King, McDunnough, Hart, Wilkin, Carter, *Class II.*—McDougall, Dobson, Scott, Angus; Baker and Rutherford (F.), equal; Greig and Griffin, equal; Boright, Robins. *Class III.*—Gwillim, Rogers, Nivin, *Primrose; *Becket and *McNaughton, equal; Dougall, (W.), Blackburn, *Johnson, *Moodie.

Second Year.—*Class I.*—Stewart, Courtice, Gill, Chase, Kenny, Archibald, Hare. *Class II.*—Clarke, Killaly, Hunter, Wright, Jaquays, Walkem, Green, Reinhardt, Dufresne, White; Howe and McDougall (W.) and Mussen, equal; Denis and Dougall (G. M.), equal. *Class III.*—Rutherford (S.), Ogilvie, *McLaren, Smaill, Rutherford (G.), Webb, *Metcalfe, *Olive, *Bishop.

First Year.—*Class I.*—Stovel, Thomson (C.), Connal, Macdonald (J. E.), Thomson (H. N.), Turnbull, MacKinnon, Burnham, Macdonald (P. W.). *Class II.*—Guthrie and Macleod, equal; Davidson and Mackie, and Walters, equal; Travis, Thompson (F. W.), Ross, Bell (R. A. S.), Newcombe, Pitcher; Bell (J. W.) and Hillary, equal; Angel, Sise, McKibbin, Kennedy, Packard. *Class III.*—Blair, Suter, Haycock, Campbell, Beatty, Symmes, Yorston; Dougall (R.) and †Edward, equal; *Reid, Staples, †Paradis.

* To pass Supplemental in Mechanics.
† " " " " Trigonometry.

EXPERIMENTAL PHYSICS.

Heat an Lgdiht.

Second Year.—*Class I.*—Kenny; Jaquays and Stewart, equal; Green, Gill, Hart; Courtice and Wright, equal; Chase, Killaly, White (W. T.), Hunter, Smaill. *Class II.*—McDougall and Mussen, equal; Dougall (G. M.) and Howe, equal; Clarke and McCallum, equal; Walkem, Webb, Metcalfe, Johnson (W. S.), Reinhardt. *Class III.*—McLaren, Archibald, Rutherford (G.), Denis, Ogilvie, Rutherford (S. F.), Ferguson, Bishop, Buchanan, Bayfield, Dufresne.

Electricity, Magnetism and Sound.

Third Year.—(*Civil, Mechanical and Mining Courses*).—*Class I.*—Robins Wilkin, Greig, Hart. *Class II.*—Baker, Gwillim, Dougall (W.), Dobson; Askwith and Currie, equal; Angus, Boright. *Class III.*—McNaughton; Carter and Griffin, equal; Nivin, McDougall and Primrose, equal; Moodie, Rogers.

(*Electrical Engineering*).—*Class I.*—McDunnough, King. *Class II.*—Becket. *Class III.*—Johnson (E. P.) and White, equal; Scott, Trenholme.

SUMMER ESSAYS.

Fourth Year.—*Class I.*—Dawson (*Main Line Changes*) and Pitcher, equal; Darling (*Experiments on Thermal Conductivity*) and Costigan (*Calorimetry and Conductivity Tests*), and Larmonth (*Calorimetry and Conductivity Tests*), equal; Duff (*Westing-House Automatic* 100 *H. P. Standard Engine*) and Dyer (*Manufacture and uses of Wire*) and Whiteside (*Coal Mining, Pictou, N. S.*), equal; Brodie (*Ferns*) and Mackay (*Water Supply, Pictou, N. S.*) and Scammel (*Wooden Bridge Construction*) equal; Cole (*Laurentian Limestones*) and Collyer (*Car Repairing and Equipment, and Running of Power House, M. S. R.*) and Connor (*Fermentation*) and Molson (*Petroleum*), equal. *Class II.*—Lambert (*Mining Notes*) and Mudge (*Power Hammers*) and Scott (*Forged Cutting Tools*), equal. *Class III.*—Leach (*Gold and Gold Mining*) and Lonergan (*Water Works and Elec. Light*), equal; Gunn (*Mining in the Prov. of Quebec*), Longworth (*Installation of Electric Plant*), Morris.

THIRD YEAR.—*Class I.*—Carter (*Road Making*) and Dougall (W. (*Montreal Street Paving*) and Gwillim (*Geology of Keewatin*), equal; Greig (*Transmission of Power by Wire Rope*). *Class II.*—Robins (*Compensation in Time Pieces*) and Rogers (*Locomotive Construction*) and Wilkins (*Hydrographic Survey*), equal; Blackburn (*Corliss Engine Building*); Askwith (*Rock Blasting*) and Griffin (*Forging and Welding*), equal; Trenholme (*Adjustment of a Lathe*), Currie (*Paper Mill*), McNaughton (*Water Works, Huntingdon, P.Q.*), Nivin (*Corliss Engines for London Elec. Works*), McDougall (G. D.) (*Iron Foundry*), Moodie (*Turning Tapers*), Turner (*The Foundry*), Boright (*Locomotive Construction*) and Hart (*Mine Surveying*), equal; Becket (*Intramural Elec. R. R. Columbian Fair*) and Dobson (*The Sun*), equal., *Class III.*—Primrose (*Locomotive Repairs*), Baker (*Locomotive Construction*) and White (*Elec. Street Ry.*), equal; Johnson (E.P.) (*Ottawa Elec. Ry.*) and Van Barneveld (*Works and Mines of the New Glasgow Coal & Iron Co.*), equal; King (*Electric Welding and Forging*), McDunnough (*Construction of T. and H. Arc Light Dynamo*), Angus, (*Stationary Engines for Electric Street Ry.*), Scott (*Electric Bells*).

CHEMISTRY.

FOURTH YEAR.—(*Chemistry Course*).—*Class I.*—Brodie and Molson, equal; Connor.

THIRD YEAR.—(*Mining Engineering Course*).—*Class I.*—Gwillim, Askwith, Hart Wilkin. *Class II.*—Johnson. *Class III.*—Van Barneveld.

SECOND YEAR.—(*Chemistry Course*).—*Class I.*—McCallum.

SECOND YEAR.—(*Mining Engineering*).—*Class I.*—None. *Class II.*—Rutherford (F.), Green, Stewart, Mussen, Archibald. *Class III.*—Webb, Buchanan

PRACTICAL CHEMISTRY.

FOURTH YEAR.—(*Chemistry Course*).—*Class I.*—Molson, Brodie. *Class II.*—Connor.

THIRD YEAR.—(*Mining Engineering Course*).—*Class I.*—Gwillim and Johnson, equal; Wilkin; Askwith and Hart, equal. *Class II.*—Van Barneveld.

SECOND YEAR.—(*Chemistry Course*).—*Class I.*—McCallum.

DETERMINATIVE MINERALOGY.

THIRD YEAR.—(*Mining Course*).—*Class I.*—Gwillim. *Class II.*—Hart, Johnson. *Class III.*—Askwith and Wilkin, equal; Van Barneveld.

GEOLOGY (*Advanced*).

FOURTH YEAR.—*Class I.*—Cole and Whiteside, equal. *Class II.*—Leach, Lambert. *Class III.*—Gunn.

MUSEUM WORK IN GEOLOGY AND MINERALOGY.

FOURTH YEAR.—*Class I.*—Cole. *Class II.*—Whiteside and Leach, equal; Lambert. *Class III.*—Gunn.

SURVEYING.

THIRD YEAR.—*Class I.*—None. *Class II.*—Hart, Rutherford (F.), Wilkin Dobson and Van Barneveld, equal; Gwillim, Carter. *Class III.*—Askwith.

SECOND YEAR.—*Class I.*—Stewart and Killaly, equal. *Class II.*—Hare, Archibald, Reinhardt, Webb, Metcalfe, Green, Johnson (W. S.); Denis and Ogilvie, equal. *Class III.*—Dufresne, Mussen, Buchanan.

SURVEYING FIELD WORK.

THIRD YEAR.—*Class I.*—None. *Class II.*—Carter, Wilkin, Dobson, Rutherford (F.). *Class III.*—Gwillim, *Van Barneveld, Hart, *Dougall (W.) and Askwith, equal.

SECOND YEAR.—*Class I.*—Stewart. *Class II.*—Killaly, Webb, Hare; Mussen and Reinhardt, equal; Green, Archibald, Dufresne, Denis. *Class III.*—Ogilvie, Johnson (W. S.), Metcalfe.

*Supplemental in instrument work.

GEODESY.

FOURTH YEAR.—*Class I.*—Mackay. *Class II.*—Dawson and Lonergan, equal.

PROJECTION AND GEOMETRICAL DRAWING.

FIRST YEAR.—*Class I.*—Stovel, Turnbull, McKinnon, Guthrie, Corriveau; Bell (J.W.) and Macdonald (P.W.) and Travis, equal; Bell (R.A.) and McRae, equal. *Class. II.*—Macleod; Mackie and Ross and Thomson (C.) equal; Angel, McDonald (J.E.), Thompson (F.W.), Archibald, Davidson, Blair, Symmes; Connal and Hillary and Thomson (H.N.), equal; Reaves; Burnham and Staples, equal; Beatty and Grant, equal; Kington, McKibbin; Lacroix and Pitcher and Walters, equal. *Class III.*—Bovey, and May, equal; Kennedy, Yorston; Gisborne and Holland, equal; Desbarats and Macbean, equal; Finnie and Colson, equal; Newcombe Reid; Drinkwater and Dougall (R.), equal.

FREEHAND DRAWING.

FIRST YEAR.—*Class I.*—Staples, McRae, Gisborne, Angel; Thomson (C.) and McKinnon, equal; Beatty. *Class II.*—Guthrie and Turnbull, equal; Stovel, Bell (J.W.), Newcombe, Finnie, Davidson; Archibald and Bovey and Macdonald (P.W.) and Thompson (F.W.) and Thomson (H.N.) equal; May and Symmes, equal; Macbean and Walters, equal; Blair; Colson and Macleod, equal; Travis, Drinkwater; Pitcher and Reaves and Bell (R.A S.), equal; Mitchell (N.S.) and Ross and Vickerson, equal; Campbell and Packard and Suter, equal. *Class III.*—Burnham and

Kennedy, equal; Connal and Grant, equal; Hillary and Macdonald (J.E.), and Mcakenzie and McKibbin, equal; Holland, Edward, Desbarats; Paradis and Lacroix, equal; Yorston, Dougall (R.); Corriveau and Mitchell (N.C.), equal.

MAPPING.

THIRD YEAR.—(*Civil Engineering Course*).—*Class I.*—None. *Class II.*—Carter, Dobson. *Class III.*—Dougall (W.).
(*Mining Course*).—*Class I.*—Gwillim and Hart, equal; Wilkin, Rutherford (F.).

SECOND YEAR.—(*Civil Engineering Course*).—*Class I.*—Killaly, Reinhardt, Dufresne, Denis. *Class II.*—Hare, Ogilvie.
(*Mining Course*).—*Class I.*—Stewart, Green, Mussen. *Class II.*—Archibald, Webb.

FIRST YEAR.—*Class I.*—McRae; McKinnon and Stovel and Thomson (C.), equal. *Class II.*—Colson; Walters and Corriveau and Thompson (F.W.), equal; Angel, Turnbull, Thomson (H. N.); Symmes and Madconald, (P. W.), equal; May and Macleod, equal; Bell (R. A.); Kennedy and Edward and Blair and Bell (J. W.), equal; Travis and Ross, equal; Staples, Campbell, McKibbin; Guthrie and Finnie and Drinkwater and Archibald, equal; Hillary; Macbean and Rovey, equal; Paradis and Lacroix and Beatty, equal. *Class III.*—Ritcher and Packard and Newcombe, equal; Simpson; Yorston and Vickerson and Reaves and Barber, equal; Gisborne and Davidson, equal; Mackenzie; Grant and Desbarats and Connal, equal; Mitchell (N. C.), Mitchell (N. S.), Holland; Ewan and Macdonald (J. E.), equal; Suter and Burnham, equal.

DESCRIPTIVE GEOMETRY.

THIRD YEAR.—*Class I.*—Dobson. *Class II.*—Carter.

SECOND YEAR.—*Class I.*—Stewart; Killaly and Gill, equal; Hare. *Class II.*—Dougall (G. M.), Green, Hunter, Wright, Kenny, Chase; Reinhardt and Smaill, equal. *Class III.*—Courtice; Howe and McDougall, equal; Walkem and Jaquays, equal; Clarke, White; Mussen and Dobson, equal.

MECHANICAL DRAWING.

THIRD YEAR.—*Class I.*—King, Currie, McDunnough. *Class II.*—Baker and Griffin, equal; Becket, Robins, Moodie, Turner. *Class III.*—Greig, Johnson, McNaughton; McDougall and Angus, equal; White, Primrose, Rogers; Boright and Scott, equal; Blackburn, Nivin, Trenholme.

SECOND YEAR.—*Class I.*—None. *Class II.*—Gill, Hunter, Jaquays, Bayfield Chase; Smaill and McDougall (W.), equal. *Class III.*—Howe, Rutherford (S.), McLaren; Kenny and Wright and Olive, equal; Haycock and Rutherford (G.), equal; Sise, White; Clarke and Walkem, equal; Courtice and Dougall (G.), equal; Balfour and Bishop and Ferguson, equal; Alley.

MINING DRAWING.

THIRD YEAR.—(*Mining Engineering Course*).—*Class I.*—Askwith, Gwillim. *Class II.*—Hart, Wilkin, Van Barneveld.

DESIGNING.

FOURTH YEAR.—*Civil Engineering Course*).—*Class I.*—Mackay, Lonergan, Dawson.
(*Electrical Engineering Course*).—*Class I.*—Longworth. *Class II.*—Morris, Pitcher. *Class III.*—Collyer.
(*Mechanical Engineering Course.*)—*Class I.*—Darling, Costigan; Duff and Mudge, equal. *Class II.*—Dyer, Larmonth.
(*Mining Engineering Course*).—*Class I.*—Cole, Gunn, Leach, Whiteside. *Class II.*—Lambert.

ZOOLOGY.

SECOND YEAR.—*Class I.*—Green, Stewart. *Class II.*—Rutherford (F.), Mussen, Denis. *Class III.*—Archibald; Dufresne and Ogilvie, equal; Hare, Reinhardt.

GEOLOGY AND MINERALOGY.

THIRD YEAR.—*Class I.*—Hart, Gwillim, Carter. *Class II.*—Wilkin and Dobson, equal; Johnson (E. P.). *Class III.*—Askwith, Van Barneveld, Dougall (W.).

MINERALOGY (ADVANCED).

FOURTH YEAR.—*Class I.*—Brodie, Molson, Whiteside, Connor. *Class II.*—Cole, Leach. *Class III.*—Lambert, Gunn.

THIRD YEAR.—*Class I.*—None. *Class II.*—Hart, Wilkin, Gwillim. *Class III.*—Van Barneveld, Askwith.

ASSAYING.

FOURTH YEAR.—(*Mining Course*).—*Class I.*—Whiteside, Cole. *Class II.*—Leach Gunn, Lambert.

METALLURGY.

FOURTH YEAR.—*Class I.*—Molson: Cole and Whiteside, equal: Brodie, Leach, *Class II.*—Connor, Lambert. *Class III.*—Gunn.

BOTANY.

SECOND YEAR.—*Class I.*—None. *Class II.*—McCallum.

MINING.

THIRD YEAR.—*Class I.*—Hart, Gwillim. *Class II.*—Wilkin, Van Barneveld. Askwith.

MECHANISM.

SECOND AND THIRD YEARS.—*Class I.*—Courtice and Gill, equal; Chase, Jaquays, Kenny. *Class II.*—Walkem, Hunter, Balfour, Carter. *Class III.*—Dobson, Wright, Clarke, McDougall, Dougall (G.), Rutherford (S.); Rutherford (G.) and Smaill, equal; Bayfield, Bishop; Dougall (W.) and White, equal.

THIRD YEAR.—(*Mining Course*).—*Class I.*—Wilkin. *Class II.*—Hart. *Class III.*—Adams, Gwillim, Askwith, Dougall (W.).

THEORY OF STRUCTURES.

Ordinary.

FOURTH YEAR.—(*Civil Engineering Course*).—*Class I.*—Mackay. *Class II.*—Dawson and Lonergan, equal.

THIRD YEAR.—(*Civil, Mechanical and Mining Courses*).—*Class I.*—Carter and Currie, equal. *Class II.*—Hart, Dobson, Boright, Angus, Greig; McDougall (G. D.) and *Primrose, equal; Wilkin, Adams. *Class III.*—Griffin, Van Barneveld; McNaughton and *Rogers, equal; *Robins; *Baker and Gwillim, equal; *Blackburn, *Nivin, *Askwith; *Dougall (W.) and *Turner, equal; †Moodie.

THIRD YEAR.—(*Electrical Engineering Course.*)—*Class I.*—King, McDunnough. *Class II.*—None. *Class III.*—*White (W. T.), *Trenholme, *Johnson (E. P.).

Honours.

FOURTH YEAR.—*Class I.*—None. *Class II.*—Mackay, Dawson.

THIRD YEAR.—*Class I.*—Carter. *Class II.*—Currie and King, equal: Dobson.

*Supplemental in Paper II.
† Supplemental in Paper I.

HYDRAULICS.

Ordinary.

FOURTH YEAR.—*Class I.*—Darling, Duff, Mackay. *Class II.*—Lonergan, Whiteside, Cole, Adams, Leach; Dawson and Mudge, equal. *Class III.*—Dyer, Larmonth, Costigan; Gunn and Lambert, equal.

Honours.

FOURTH YEAR.—*Class I.*—Mackay. *Class II.*—Dawson.

THERMODYNAMICS.

FOURTH YEAR.—*Class I.*—Duff, Pitcher. *Class II.*—Darling, Mackay, Whiteside, Longworth, Dobson. *Class III.*—Dyer; Cole and Costigan and Mudge, equal; Collyer, Lambert, Leach, Morris; Adams and Larmonth, equal; Lonergan, Gunn.

MACHINE DESIGN.

FOURTH YEAR.—*Class I.*—Darling, Mudge. *Class II.*—Duff, Longworth. *Class III.*—Dyer, Pitcher, Costigan, Collyer, Larmonth, Morris.

THIRD YEAR.—(*Mechanical and Electrical Courses*).—*Class I.*—King, Currie. *Class II.*—Becket and McDougall (G.), equal; Baker, McDunnough; Angus and Boright, equal; Nivin, Griffin, Scott. *Class III.*—Moodie, Robins, Rogers, Greig, McNaughton, Trenholme, White, Primrose.

DYNAMICS OF MACHINERY.

THIRD YEAR.—*Class I.*—Currie and King, equal; McDunnough. *Class II.*—Baker and Becket, equal; Robins; Angus and Nivin, equal; Boright and McDougall, equal. *Class III.*—Griffin, Scott, Greig, Moodie, White, Rogers; McNaughton and Primrose, equal; Johnson and Trenholme, equal.

FOURTH YEAR.—*Class I.*—Duff and Pitcher, equal. *Class II.*—Darling, Mudge, Longworth. *Class III.*—Collyer, Dyer, Costigan, Morris, Larmonth.

ELECTRICAL ENGINEERING.

FOURTH YEAR.—*Class I.*—None. *Class II.*—Longworth, Morris, Collyer, Pitcher.

THIRD YEAR.—*Class I.*—King. *Class II.*—McDunnough and Scott, equal.

LABORATORY WORK.

THIRD YEAR.—(*Cement Laboratory*).—*Class I.*—Carter and Dobson, equal. *Class II.*—Dougall (W.). *Class III.*—None.

FOURTH YEAR.—(*Electrical Laboratory*).—*Class I.*—Collyer. *Class II.*—Pitcher, Morris, Longworth.

THIRD YEAR.—(*Electrical Laboratory*).—*Class I.*—King and McDunnough, equal. *Class II.*—Scott. *Class III.*—Johnson, Becket.

FOURTH YEAR.—(*Geodetic Laboratory and Astronomical Work*).—*Class I.*—Mackay, Dawson. *Class II.*—Lonergan.

FOURTH YEAR.—(*Meteorological Work.*)—*Class I.*—Mudge.

FOURTH YEAR.—(*Hydraulic Laboratory*).—*Class I.*—Mackay, Duff. *Class II.*—Darling; Costigan and Mudge, equal; Dyer, Dawson, Larmonth, Lonergan. *Class III.*—None.

FOURTH YEAR.—(*Hydraulic Laboratory*).—*Class I.*—None. *Class II.*—Whiteside, Cole, Leach, Lambert. *Class III.*—Gunn, Adams.

FIRST YEAR.—(*Mathematical Work.*)—*Class I.*—Stovel, Pitcher, Turnbull Macdonald (P. W.) and Symmes, equal; Mackay and Macleod, equal; MacKinnon and Thomson (C.), equal; Thompson (F. W.) and Thomson (H. N.), equal. *Class II.*—Burnham and Guthrie, equal; Travis, Macdonald (J. E.); Gisborne and Grant, equal; Edward, Ross; Davidson and McKibbin and Reid, equal; Bell (J. W.) and Lacroix and Staples, equal; Bell (R. A. S.) and Bovey and Macbean and Suter, equal; Campbell

and Colson and Kennedy and Newcombe and Paradis and Simpson, equal; Angel and Archibald and Blair and Mitchell (N. S.) and Walters, equal; McRae; Connal and Hillary and Mackenzie, equal. *Class III.*—Packard, May; Beatty and Drinkwater and Dougall (R.) and Finnie and Thomson (H. S.), equal; Desbarats and Haycock and Yorston, equal; Corriveau and Ewan and Sise, equal.

FOURTH YEAR.—(*Mechanical Laboratory*).—*Class I.*—Darling and Mudge, equal. *Class II.*—Duff and Dyer, equal. *Class III.*—Costigan, Larmonth.

THIRD YEAR.—(*Physical Laboratory*)—(*Civil, Mechanical and Mining Courses.*)—*Class I.*—Baker. *Class II.*—Boright, Dobson, Blackburn, Angus, Askwith, Currie. *Class III.*—Nivin; Griffin and Hart, equal; Wilkin; Gwillim and Robins, equal; Greig, Dougall (W.); Moodie and Turner, equal; McNaughton, Primrose, Rogers, McDougall, Carter, Van Barneveld. (*Electrical Engineering Course*)—*Class I.*—King, Scott. *Class II.*—Johnson (E.P.) and White, equal; Becket and McDonnough, equal. *Class III.*—Trenholme.

SECOND YEAR.—(*Physical Laboratory*).—*Class I.*—Stewart, Reinhardt, Kenny; Gill and Hunter and Jaquays, equal; Walkem; Denis and Rutherford (G.), equal; Hare and Johnson, equal: Courtice and Green, equal; Rutherford (S.) and Smaill, equal. *Class II.*—McCallum; Balfour and Dougall (G.M.) and McLaren and Sise, equal; Archibald and Buchanan and White and Wright, equal; Clarke and Mussen, equal; Webb; Dufresne and Ferguson, equal; Howe. *Class III.*—Metcalfe; Alley and Ogilvie, equal; Chase; Killaly and McDougall, equal; Bishop, Bayfield, Olive.

FOURTH YEAR.—(*Testing Laboratory*)—*Class I.*—Dawson and Mackay, equal. *Class II.*—Lonergan.

THIRD YEAR.—(*Testing Laboratory*)—(*Civil and Mechanical Courses*).—*Class I.*—Currie. *Class II.*—Robins, Dobson, Griffin, Carter, Baker, Boright, Greig, Blackburn, Nivin. *Class III.*—McNaughton and Moodie equal; Angus, Primrose, Dougall (W.), Rogers, McDougall (G.D.), Turner.

THIRD YEAR.—(*Electrical Engineering Course*)—*Class I.*—King, McDunnough, Becket. *Class II.*—Scott, Johnson (E.P.). *Class III.*—Trenholme, White.

THERMODYNAMIC LABORATORY.

FOURTH YEAR.—(*Thermodynamic Laboratory*)—(*Mechanical Engineering Course*).—*Class I.*—Darling; Dyer and Mudge, equal. *Class II.*—Duff, Costigan. *Class III.*—Larmonth.

THIRD YEAR.—(*Thermodynamic Laboratory*)—(*Civil, Mechanical and Mining Courses*)—*Class I.*—Baker and Currie, equal. *Class II.*—Robins and Griffin, equal; Angus, Moodie, Nivin, Greig, McNaughton. *Class III.*—Primrose; Turner and Boright, equal; Blackburn; McDougall and Rogers, equal. (*Electrical Engineering Course*).—*Class I.*—King. *Class II.*—McDunnough and Becket, equal. *Class III.*—Scott; Trenholme and White and Johnson, equal.

First Year.—*Class I.*—Vickerson, Thompson (F. W.), MacKinnon, McRae, Staples, Angel. *Class II.*—Blair; Macbean and Macleod and Pitcher, equal; Bell (J. W.) and Reaves and Travis, equal; Bell (R.A.); Archibald and Davidson, equal; Barber and Guthrie and Newcombe, equal; Stovel and Symmes, equal; Hillary and May and McKibbin, equal; Thomson (C.) and Turnbull, equal; Bovey and Colson and Mackenzie and Yorston, equal; Drinkwater, Beatty. *Class III.*—Campbell, Seagram; Mitchell (N. S.) and Packard, equal; Suter; Gisborne and Walters, equal; Thomson (H. N.); Macdonald (J. E.) and Macdonald (P. W.), equal; Aylmer and Connal, equal; Edward and Finnie, equal; Bickford and Corriveau and Desbarats and Dougall (R.) and Simpson, equal; Burnham; Grant and Lacroix, equal; Craig and Lomas, equal; Kennedy; McDermott and Paradis and Ross and Wade, equal; Mitchell (N. C.) and Thomson (H. S.), equal; Ewan, Donkin.

SHOPWORK.

Fourth Year.—*Class I.*—Costigan and Dyer, equal. *Class II.*—Darling; Larmonth and Mudge, equal; Duff.

Third Year.—(*Mechanical and Electrical Engineering*).—*Class I.*—Baker, Griffin; King and Moodie, equal; Becket and Robins, equal; Greig, Boright. *Class II.*—Currie, McNaughton, Rogers, Angus, Nivin, Trenholme, Blackburn and McDougall and Primrose, equal; Turner and White, equal; McDunnough and Scott, equal; Johnson.

Second Year.—(*Electrical and Mechanical Engineering Courses*).—*Class I.*—Gill, Hunter, Jaquays, Mackie, McDougall; Walkem and Wright, equal; Smaill, Chase. *Class II.*—Courtice; Kenny and Rutherford (S.), equal; Ferguson and Rutherford (G.), equal; Howe; Bayfield and Clarke, equal; Dougall (G. M.) and McLaren, equal. *Class III.*—Balfour, Alley, Bishop, White.

(*Civil and Mining Engineering Courses*).—*Class I.*—Archibald, Stewart. *Class II.*—Mussen, Green, Webb, Ogilvie, Denis. *Class III.*—Reinhardt, Killaly, Hare, Dufresne.

Students of the University

SESSION 1893-4.

McGILL COLLEGE.

FACULTY OF LAW.

FIRST YEAR.

Boyer, Louis,	Montreal	Mitchell, Victor E.,	London, Eng.
Donahue, William,	Farnham, Q	Monty, Rodolphe,	Marieville, Q
Doucet, René Pothier,	Montreal	Mullin, Robert T.,	Leitchfield, Q
Fortier, Joseph A.,	St. Scholastique, Q	Ogilvie, Douglas,	Montreal
Gamble, William,	St Henri, Q	White, Chas. D.,	Sherbrooke, Q
Hanson, Albert Curtis,	Barnston, Q		

SECOND YEAR.

Barron, Robert H., B.A.,	Lachute, Q	Lamoureux, E. M. J.,	St. Sebastien, Q
Carmichael, S., B.A.,	Montreal	Landry, Joseph,	Quebec
Devlin, E. B., B.A. (St. Mary's,	Aylmer, Q	Patterson, Wm., M.A.,	Montreal
		Swindlehurst, Albert,	Montreal
Devlin, Jos. A.,	Aylmer, Q	Whelan, Jno. P., B.A. (Laval),	Montreal
Gaudet, Dom. Chas., B.A.,	Ottawa, O		

THIRD YEAR.

Cox, Wm. Hy., B.A. (Laval),	Montreal	MacDougall, Gordon W., B.A.,	Montreal
Dunlop, John Hamilton,	Montreal	Sawyer, Bannell,	Cote St. Antoine
Hogle, Arthur,	Montreal	Sheridan, Philip,	Cote St. Antoine
Internoscia, Girolamo,	Rapolla, Italy	Walsh, J. Chas., B.A. (Laval),	Montreal
Jones, Arthur G.,	Richmond, Q		

PARTIAL.

Cole, E. C.,	Montreal	O'Leary, Emil,	Montreal
Cole, F. M.,	Montreal	Ringland, Jos.,	Cote St. Antoine
Fortin, P. A. A., St. François,	Beauce, Q	Ross, John W.,	Montreal
McCurdy, E. A.,	Montreal	Sinn, George M.,	Arnprior, O

FACULTY OF MEDICINE.

FIRST YEAR.

Adams, E. J.,	Montreal
Allan, J. B.,	Covehead, P.E.I
Allan, W. G.,	Montreal
Bacon, F. J. A.,	Montreal
Bearman, G. P.,	Ottawa
Boyne, J.,	Montreal
Brears, C. F.,	Regina, N.W.T
Brown, C. L.,	Port Lewis, Q
Brown, F. W.,	Danville, Q
Burrell, R. H.,	Yarmouth, N.S
Callaghan, J. E.,	Lake Verd, P.E.I
Campbell, H. C.,	Russell, O
Casselman, V. E. D.,	Lauder, Man
Cleveland, E. A.,	Richmond, Q
Darch, J. A.,	Sherbrooke, Q
Dearden, D. C. A.,	Richmond, Q
Douglas, A. J.,	Winnipeg, Man
Doyle, J. J.,	Halifax, N.S
Eberts, E. M.,	Winnipeg, Man
Enright, W. J.,	Port Daniel, Q
Evans, T. H.,	Trenholmville, Q
Foster, A. L.,	Ottawa
Foster, G. M.,	Pembroke, O
Galbraith, H. H.,	Montreal
Gadbois, F. A.,	Sherbrooke, Q
Gardner, F.,	Huntingdon, Q
Gladman, E. A.,	Lindsay, O
Gourley, T. A.,	Eganville, O
Gurd, C. C.,	Montreal
Hayden, E. W.,	Cobourg, O
Howden, G. T.,	Montreal
Hudson, H. P.,	Chelsea, Q
Hurdman, A. H.,	Ottawa
Irving, L. E. W.,	Toronto
Johnston, J. A.,	Kinkora, P.E.I
Johnston, W.,	Charlottetown, P.E.I
Keenan, C. B.,	Ottawa
Keenan, F. T.,	Lindsay, O
Kerr, A. R.,	Montreal
Kirby, H. S.,	Ottawa
Laidley, J. H.,	Montreal
Laing, A. L.,	Buckingham, Q
Lang, A. A.,	Almonte, O
Lennon, H., B.A.,	Montreal
Lockary, J. L.,	St Stephen, N.B
Loeb, A. A.,	Montreal
Long, C. B.,	Whitehall, N.Y
Lynch, T. J.,	Knowlton, Q
Lyster, H. F.,	Richmond, Q
Macleod, E. E.,	Vancouver, B.C
Maloney, M. J.,	Pembroke, O
McCabe, J. A. P.,	Windsor Mills, Q
McCallum, E. C. D.,	Maxville, O
McDonald, D. J.,	Whycocomah, C.B
McDougall, G. P.,	Lot 14, P.E.I
McDougall, J. G.,	New Glasgow, N.S
McElroy, A. S.,	Richmond, O
McKinnon, F. W.,	Vankleek Hill, O
McLennan, A. A.,	Lancaster, O
McNally, W. P.,	Summerside, P.E.I
McRae, J. D.,	Glennevis, O
Merkley, E. A.,	Chesterville, O
Morrison, C. F.,	Montreal
Morris, C. H.,	Windsor, N.S
Morse, L. H.,	Bridgetown, N.S
O'Neill, Chris.,	Waterbury, Conn
O'Reilly, R. H.,	Ottawa
Pennoyer, A. R.,	Cookshire, Q
Peppers, H. W.,	Lower St Mary's, N B
Picard, R. F. L.,	Montreal
Prodrick, W. S.,	Ottawa
Ritchie, A. A.,	Dalhousie
Robert, G. C.,	Holyoke, Mass
Robert, A. N.,	Holyoke, Mass
Robertson, D. M.,	Perth, O
Robertson, H. M.,	Chatham, O
Robertson, Andrew,	Arnprior, O
Rogers, F. E.,	Brighton, O
Shaw, J. M.,	Montreal
Skeels, A. A.,	Montreal
Smith, H.,	Acadia Mines, N.S
Sparrow, J. C.,	Alexandria, O
Stanfield, H. M.,	Truro, N.S
Stansby, F. C.,	Montreal
Thomas, H. W.,	Montreal
Thomas, J. E.,	Montreal
Thompson, J. A.,	Kinnear's Mills, Q
Tierney, J. A.,	Fallonfield, O
Tozer, F. W.,	Newcastle, N.B
Trainor, J. B.,	Kelly's Cross, P.E.I
Wainwright, F. R.,	Montreal
Wainwright, S. F. A.,	Montreal
Werngren, B. C.,	Grosse Isle, Q
Williams, E. J.,	Montreal
Wyman, D. C.,	Ohio, U.S

SECOND YEAR.

Archibald, E. W., B.A.,	Montreal
Argue, J. F.,	Carp, O
Barry, Fred.,	Montreal
Bessey, M. W.,	Waterville, Me
Berkett, F. W.,	Ottawa
Bonnell, S. N.,	Sydney, N.S

Braithwaite, J. McC., Montreal
Brown, W. K., Quebec
Brown, G. T., Cantley, Q
Brunnelle, P., Lowell, Mass
Bullard, N. C., Boston, Mass
Campbell, E. J., Carnduff, Assa
Churchill, J. L., Lockeport, N.S
Church, C. H., Montreal
Church, J. M., Aylmer, Q
Church, H. M., Montreal
Clindinnin, S. L., Brighton, O
Colquhoun, P., B.A., Colquhoun, O
Corbett, F. A., B.A., Parrsboro, N.S
Craig, R. H, Montreal
Curran, T. J., Montreal
Deacon, G R., Stratford, O
Dean, W. E., Toronto
Denny, H. E., Montreal
Dewar, F. E., Glen Sandfield, O
Donahoe, M., Cardigan Bridge, P.E.I
Douglas, J. A., Chatham, O
Draper, A. L., Vancouver, B.C
Drum, L, B.A., Quebec
Duckett, F. C., Montreal
Dunbar, W. R., New Glasgow, N.S
Dyer, A., Montreal
Edwards, A. F., Thurso, Q
Ellis, G. H., Dundela, O
Elliott, F. B., Mayfair, O
Ewan, R. B., Montreal
Fairie, J. A., Montreal
Ferguson, J. A., Smith's Falls, O
Ferguson, W. R., Niagara Falls, O
Ferguson, J. B., Kemptville, O
Finalay, C., Hamilton, O
Fish, E. C., B.A., Newcastle, N.B.
Fisk, W. M., Abbotsford, Q
Fraser. H. B., B.A., Westmeath, Q
Garrett, L., Montreal
Gilday, F. W., Montreal
Grant, D., Pictou, N.S
Hartin, G., Bell's Corners, O
Healey, D. J., Sault Ste Marie, O
Hogan, E. V., B.A., Weymouth, N.S
Howell, W. B., Montreal
Hughson, R. E., Blenheim, O
Irvine, A. D., Montreal
Jack, A. C., Montreal
Kelly, J. K., Almonte, O
Kemp, H. G., Brighton, O
Kendrick, W. N., Austin, Minn
Lake, H. W., Ridgeville, O
Lauder, S. E., Durham, O
Lee, J. F., Port Hope, O
Lynch, D. P., Chapleau, Q
MacCartney, F. W., Montreal
Macauley, J. F., River Dennis, N.S
Macleary, K. L., Danville, Q
McAllister, D. H., Belle Isle, N.B
McArthur, A. W., Williamstown, O
McConnell, H. C., Lachute, Q
McEwen, D., St Elmo, O
McDonald, H. K., Pictou, N.S.
McLaren, R. W., St Raphael, O
McTaggart, D. D., Montreal
Martin, R. H., Chatham, O
Meikle, R. H., Lachute, Q
Milburn, J. A., Peterboro, O
Mitchell, R. J. W., B.A., Montreal
Moffatt, W. A., Ormstown, Q
Moles, E. B., Arnprior, O
Morse, L. R., B.A., Laurencetown, N.B
Moss, J. N., Montreal
Mowatt, W., Montreal
Ogilvy, C., Montreal
Oppenheimer, S. S., Vancouver, B.C
Palmer, A. J., Buckingham, Q
Patrick, D., Montreal
Poussette, W. C., Peterboro, O
Prescott, A. H., Queensbury, N.B
Purvis, B. H., Portage du Fort, Q
Rea, W., Huntingdon, N.S
Robins, G. D., B.A., Montreal
Robertson, A. T., Agassiz, B.C
Ross, R. O., B.A., N. E. Margaree, N.S
Russell, R. H., Quebec
Ryan, J. P., Portage la Prairie, Man
Seale, J. H., Spokane, Wash. Ter
Secord, J. H, Summerside, P.E.I
Scott, W. T., Montreal
Shaw, R. B., Covehead, P.E.I
Smillie, Wm., Huntingdon, Q
Smith, R. E. G, B.A., Woodstock, N.B
Smith, H. A., N. Sydney, C.B
Smyth, W. B., B.A., Montreal
Steeves, C. P., B.A, Lower Coverdale, N.B
Stackhouse, O. C. S., Lachute, Q
Stearns, C. N., Montreal
Sterling, A., Fredericton, N.B
Staples, C. A., B.A., Stillwater, Minn
St Pierre, A. D., Ripon, Q
Sutherland, J. A., River John, N.S
Tétreau, T., Lawrence, Mass
Thomson, F. L., Mitchell, O
Trudeau, M. A., Henryville, Q
Tupper, T. S., Fredericton, N.B
Warren, J. F., Harper, O
Wheeler, F. H., B.A., Florenceville, N.B
Whyte, R. B., Pembroke, O
Wood, W. S., Fairbault, Q

THIRD YEAR.

Alexander, C. C.,	Fredericton, N.B
Ailes, J. H., B.A.,	West Osgoode, O
Anthony, L. X.,	Berwick, N.S
Anderson, D. P., B.A.,	N. Liverpool, Q
Baird, J.,	St Paul, Minn
Basken, J. F.,	Dunrobin, O
Barret, H. H.,	Three Rivers, Q
Beatty, E. D.,	Nepean, Q
Bishop, C. W.,	Montreal
Blow, T.H.,	South Mountain, O
Boucher, R. B.,	Peterboro, O
Bouck, C. W.,	Inkerman, O
Carron, F. B.,	Brockville, O
Chapman, H. J.,	Port Elgin, N.B
Cummins, E., B.A.,	St. Stephen, N.B
Cowie, W., B.A.,	Montreal
Cruikshank, A.,	Inverness, Q
Day, J. L., B.A.,	Montreal
Feader, W. A.,	Iroquois, O
Foss, A. F.,	Sherbrooke, Q
Fox, C. H.,	Oxley, O
Fraser, A. D.,	Hawkesbury, O
Gallant, St. C. G.,	Charlottetown, P.E.I
Gleason, J. H.,	Cowansville, Q
Grant, J. P.,	New Glasgow, N.S
Gun, A.,	Durham, O
Hamilton, R.,	Bright, O
Hargrave, I. L., B.A.,	Rosedale, Man
Harwood, R. de L.,	Vaudreuil, Q
Hogg, L., B.A.,	London, O
Hogle, J. H.,	Montreal
Johnston, F. E. L.,	Delaware, O
Keith, H. W.,	Havelock, N.S
Kerry, R. A.,	Montreal
King, J. H.,	Chipman, N.B
Knapp, H. T.,	Sackville, N.B
Lambly, W. D.,	Inverness, Q
Lasnier, H.,	Notre Dame de Levis, Q
Le Rossignol, W. J.,	Montreal
Leslie, P. C.,	Montreal
Link, D. A.,	Gravenhurst, O
McLeay, A. A.,	Danville, Q
McNally, G. J.,	Upper Kingsclear, N.B
McKinnon, N.,	Park Hill, O
McGannon, A. V.,	Brockville, O
May, G. F.,	Montreal
Merrick, J. H.,	Merrickville, O
Neill, R. W.,	Aylmer, Q
Oliver, W., B.A.,	Rockburn, Q
Phelps, S. E.,	Montreal
Price, B. S.,	King's Co., N.B
Quay, D. D.,	Port Hope, O
Reilly, W. G.,	Ottawa
Robertson, J. E.,	Morrisburg, O
Ryan, E. J.,	St. Kitts, N.W.T
Saunders, E. H.,	Woodstock, O
Shaw, H. M.,	Berwick, N.S
Slack, T. J.,	Waterloo, Q
Smith, A. D.,	New York
Smith, S. R. B.,	Brighton, O
Smith, R. A.,	Durham, O
Spearman, F. S.,	Hemmingford, Q
Tees, J., B.A.,	Montreal
Vipond, C. W.,	Montreal
Walker, D. F.,	Huntingdon, Q
Watson, J. H., B.A.,	Barbadoes, W.I
Wickham, W. W.,	Summerside, P.E.I
Williams, J. A.,	Carleton Place, O
Wood, D. M.,	Kenmore, O
Wright, H. K.,	Montreal

FOURTH YEAR.

Ault, C. R.,	Tilsonburg, O
Akerley, A. W. K.,	Fredericton, N.B
Bazin, A. T.,	Montreal
Byers, W. G. M.,	Gananoque, O
Colvin, A. R.,	Lethbridge, N.W.T
Davidson, A.,	Burns, O
Davis, R. E.,	Fallowfield, O
Drysdale, W. F.,	Perth, O
Ellis, W. L.,	St. John, N.B
Estey, A. S.,	Keswick Ridge, N.B
Evans, J. W.,	Hull, Q
Ferguson, W.,	Pictou, N.S
Fowler, D. S.,	Hudson, Wis
Fry, F. M., B.A.,	Montreal
Fulton, J. A.,	Franklin Centre, Q
Gilman, F. M.,	Tusket, N.S
Goltman, A.,	Montreal
Gorrell, C. W. F.,	Brockville, O
Hamilton, G.,	Bright, O
Hannington, J. P.,	Montreal, Q
Hart, E. C.,	Baddeck, N.B
Henderson, W.,	Dickinson, O
Hepworth, W. G.,	Manitoba
Holohan, P. A., B.A.,	Newcastle, N.B
Hume, Geo. W. L.,	Leeds Village, Q
Jacques, H. M.,	Upper Dyke, N.S
Kearns, J. F.,	Metcalfe, O
Kinghorn, H. McL., B.A.,	Montreal
Lambly, W. O.,	Montreal
Lauterman, M.,	Montreal
Lewis, J. T.,	Hillsboro, N.B
MacCarthy, G. S.,	Ottawa
McCrea, J. J.,	Laggan, O
McLaren, J. T.,	Belle Creek, P. E.I

McLaughlin, J. A.,	Avonmore, O
MacLean, C. M.,	Cambridge, N.B
McIntosh, L. Y.,	Strathmore, O
McKenzie, L. F.,	Montreal
McLennan, D. A.,	Chicago, Ills
Manchester, G. H.,	Ottawa
Matthewson, G. H., B.A.,	Montreal
Meikle, R. H.,	Lachute, Q
Mitchell, W.,	Lachute, Q
Nicholls, A. G., M.A.,	Montreal
O'Connor, E. J.,	Ottawa
Ogden, C. L., B.A.,	Warrensburg, N.Y
Reeves, Jas.,	Eganville, O
Richardson, A.,	South March, O
Richardson, H. J.,	Chesterville, O
Rimer, F. E.,	Bryson, Q
Robertson, A. A., B.A.,	Montreal
Rodger, D. A.,	Genoa, Q
Ross, D. W.,	Peel, N.B
Ross, H.,	Thornburn, N.S
Ross, J. J., B.A.,	Dewittville, Q
Scammell, J. H.,	St. John, N.B
Scott, W. H.,	Owen Sound, O
Sharpe, E. M.,	Havelock, N.B
Shaw, H. S.,	Montreal, Q
Shillington, A. T.,	Kemptville, O
Spring Rice, T. A.,	Montreal
Stearns, C. N.,	Montreal
Stenning, W. A.,	Coaticook, Q
Wilson, R. D.,	Derby, N.B
Wolf, C. G. L., B.A.,	Winnipeg, Man
York, H. E.,	Metcalfe, O

FACULTY OF ARTS.

Undergraduates.

FIRST YEAR.

Names.	*School.*	*Residence.*
Botterell, John E.,	Merchiston Castle,	Montreal, Q
Browne, John G.,	M.H.S.,	Montreal, Q
Bruce, John C.,	Huntingdon Academy,	Huntingdon, Q
Campbell, Ed. M.,	Inverness Academy,	Inverness, Q
Campbell, Roland P.,	Montreal Collegiate Institute,	Cote St. Antoine
Cleland, J. A.,	Private Tuition,	Montreal, Q
Coussirat, Henri A.,	M.H.S.,	Montreal, Q
Cunningham, Arthur A.,	Huntingdon Academy,	Huntingdon, Q
Davidson, Campbell,	Montreal Collegiate Institute,	Montreal, Q
Douglas, Robt. J.,	Private Tuition,	Farltown, N.S
Eastman, Fred. S.,	Montreal Diocesan Theological College,	Toronto
Ferguson, Hugh,	Almonte H. S.,	McLaren's Depot, O
Fraser, Simon L.,	Hawkesbury H. S.,	Hawkesbury, Q
Gowan, Thos.,	Goderich Collegiate Institute,	Monkton
Harrington, G. Eric,	M.H.S.,	Montreal, Q
Howard, Campbell,	Montreal Collegiate Institute,	Montreal, Q
Ives, Chas. K.,	Normal School, Montreal,	Stanstead, Q
Kerr, Robt. Harold,	M.H.S.,	Montreal, Q
Larmonth, G. Everett,	M.H.S.,	Montreal, Q
McLean, Sam.,	Lindsay Collegiate Institute,	Bolsover, O
McLean, Arch. K.,	Private Tuition,	Berwick, O
McLeod, Donald M.,	Private Tuition,	Springton, P.E.I
McMaster, Andrew R,	Montreal Collegiate Institute,	Montreal, Q
Macfarlane, Lawrence,	M.H S.,	Montreal, Q
MacKay, Hector,	Kincardine H.S.,	Ripley, O
MacKay, Malcolm,	Montreal Collegiate Institute,	Montreal, Q
Mair, John A.,	Almonte H.S.,	Lanark, O
Mallinson, Stephen H.,	Private Tuition,	London, Eng
Marler, Herbert M.,	Montreal Collegiate Institute,	Montreal, Q
Meyer, John B.,	Senior School and Private Tuition,	Montreal, Q
Overing, R. Y.,	M. Diocesan Theo. Coll.,	Mount Royal Vale, Q
Ross, A. R,	Montreal Coll. Inst.,	Montreal, Q
Russel, Colin K.,	Montreal Collegiate Institute,	Montreal, Q
Saxe, John G.,	M.H.S.,	Montreal, Q

Steacy, Fred. W.,	Montreal Diocesan Theological College,	Montreal, Q
Stevenson, James,	Montreal Collegiate Institute,	Montreal, Q
Trenholme, Arthur K.,	M.H.S.,	Cote St. Antoine
Turner, Henry H.,	Carleton Place H.S.,	Appleton, O
Willis, James J.,	M.H.S.,	Montreal, Q
Wyman, Dan. B.,	Hawkesbury H.S.,	Chute au Blondeau, O
Wyman, Hiram B.,	Hawkesbury H.S.,	Chute au Blondeau, O
Ziegler, John A.,	Berlin H.S.,	Berlin, O

SECOND YEAR.

Names.	*School.*	*Residence.*
Archibald, Sam. G.,	M.H.S.,	Montreal, Q
Bates, Geo. E.,	Concord H.S.,	Lanark, O
Campbell, Geo. A.,	M.H.S.,	Montreal, Q
Cole, Wilfrid G. G.,	Montreal Collegiate Institute,	Montreal, Q
Ferguson, Wm. S.,	Prince of Wales College,	Marshfield, P.E.I
Gordon, Alf. E.,	Prince of Wales College,	Alberton, P.E.I
Howell, Arch. R.,	St. John's School,	Montreal, Q
Lennon, Walter S.,	Wesleyan Theological College,	Montreal, Q
McMartin, Thos. A.,	McGill Normal School,	Grande Fresnière, Q
Molson, Kenneth,	M.H.S.,	Montreal, Q
Moore, Wm.,	Inverness Academy,	Lachute
Pollock, Thos. I.,	Lachute Academy,	Hill Head
Robertson, John C.	Private Tuition,	King's Co., N.B
Ross, Herbert,	M.H.S.,	Montreal, Q
Saunders, Frank C.,	M.H.S.,	Montreal, Q
Schwartz, Hans J.,	Quebec H.S.,	Quebec
Scott, Arthur P.	M.H.S.,	Montreal, Q
Scrimger, J. Tudor,	M.H.S.,	Montreal, Q
Smiley, Francis C.,	St. Francis College,	St. Lambert, Q
Stockwell, Hy. P.,	St. Francis College,	Danville, Q
Turner, Wm. G.,	Quebec H.S.,	Quebec
Watters, Wm. H.,	Stanstead Wesleyan College,	Lynn, Mass

THIRD YEAR.

Armstrong, E. N.,	Montreal, Q	MacIntosh, Major H.,	Summerside, P.E.I.
Burnet, Arthur,	Farnham Centre, Q	McNaughton, Francis,	Huntingdon, Q
Craig, W. W.,	Montreal, Q	Rogers, Reginald H.,	Alberton, P.E.I
Crombie, Wm. B.,	Fort Coulonge, Q	Smyth, W. Oswald,	Montreal, Q
Dyer, Edward,	Sutton, Q	Sutherland, Wm. C.,	Woodstock, O
Fourney, F. W.,	Montreal, Q	Symmes, Thos. J.,	Aylmer, Q
Gustin, Wm. Alfred,	Fitch Bay, Q	Tooke, Fred. T.,	Montreal, Q
Hanson, Albert C.,	Barnston, Q	Trenholme, Norman M.,	Montreal, Q
Hickson, James Claud,	Montreal, Q	Wallace, James M.,	North Gower, O
Hopkins, M. C.,	Montreal, Q	Watt, James C.,	Lanark, O
Howard, E. Edwin,	Farnham, Q	Weir, George,	Eastwood, O
Keith, Neil D.,	Glencoe, O	Young, Henry,	Blakeney, O
Leroy, O. E.,	St. Andrew's, East	Young, Stephen,	Blakeney, O
Levy, A.,	Montreal, Q		

FOURTH YEAR.

Barlow, Walter L.,	Montreal, Q	Graham, Angus,	Glencoe, O
Bickerdike, F. A. C.,	Montreal, Q	Graham, Fred. H.,	Trow Hill, Q
Blackett, John,	Ormstown, Q	Hanran, Robt. J.,	Inverness, Q
Bond, Wm. L.,	Montreal, Q	Harper, Robt. M.,	Quebec, Q
Boyd, Leslie H.,	Montreal, Q	Harvey, Fred. W.,	Abercorn, Q
Bremner, William,	Ottawa, O	Ireland, G. D.,	Alberton, P.E.I
Davis, E. A.,	Morin Flats, Q	Lambly, M. O.,	Inverness, Q
Davis, David T.,	Montreal, Q	Lewis, Wm. P.,	Iberville, Q
Day, Frank J.,	Belleville, O	McGregor, Alex.,	St Andrews, Q
Dickson, Ed. H. T.,	Trenholmeville, Q	McKeracher, W.,	Howick, Q
Dickson, Syd. M.,	Richmond, Q	Moffat, D. S.,	Irvine, Q
Duclos, Arnold Wm.,	Montreal, Q	Naylor, Henry A.,	Shawville, Q
Ellicott, T. W.,	Montreal, Q	Ogilvy, Charles,	Montreal, Q
Fraser, Frank C.,	Montreal, Q	Smith, Alistair,	Petitcodiac, N.B.
Garret, W. P.,	Ottawa, O	Stewart, J. C.,	Embro, Q

B.A.

Gordon, John S.	Reeves, Arch. C.
Internoscia, Jerome	Sadler, Thos. A.
McGerrigle, John A.	Smith, Ed. F. McL.
McLeod, Norman A.	Smith, Geo. Hutchinson
Muir, Peter D.	

M.A.

Barlow, Alf. E.

Partial Students.

A Student who is not an Undergraduate, or Graduate, is called a Partial Student.

The figure (1), (2) or (3), prefixed to a name, indicates that the Student takes a class in the corresponding year as well as in that where the name is found.

FIRST YEAR.

Armstrong, W. J. Alex.,	Bristol, Q	Gourlay, Wm. L.,	Carp, O
Belton, Alf. J.,	Clayton, O	Hamilton, Arthur,	Montreal, Q
Bethel, Thos. G.,	Masc. Rapids, Q	Hayson, Hy. J.,	Montreal, Q
Biron, M. W.,	Wakefield	Heeny, Wm. B.,	Danford Lake
Blair, David E.		Hill, Walter H. P.,	Montreal, Q
Boyce, Wm. S. P.,	Norham, O	Horsey, Harold I.,	Kingston, O
Brace, Adam P.,	Toronto, O	Judah, Fred. R.,	Montreal, Q
Brown, Thos.,	Montreal, Q	Keefer, Robert,	Flesherton, O
Carr, John		Kelly, Matt.	
Crombie, Geo. L.,	Fort Coulonge, Q	Lamoise, Victor L.,	Montreal, Q
Crozier, Hugh G.,	Grand Valley, O	Leitch, Fred. A.,	Flesherton, O
Culp, Josephus,	Beamsville, O.	Leitch, Hugh,	Walkers, O
Currie, C. Willey,	Abercorn	Lough, Dan. B.	
Davidson, Shirley,	Montreal, Q	McAmmond, Robt. B.,	Winchester Springs
Eagleson, Richd.,	Hazeldean, O		
Edgar, Mackay,	Montreal, Q	McAteer, Thos. G.,	Stayner, O
Extence, George		MacCosham, Jno. A.,	Bryson, Me.
Genova, Val.,	Montreal, Q	McCuaig, Wm.,	Bryson, Q
Gilmore, Geo.,	Derry, Ireland	MacDougall, Robt. E.	

McKinnon,—
McMartin, Andrew R.
Mackie, Robt. L. D., Lachute, Q
Menançon, John E., Stoke Centre
Millar, David D., Burgoyne, O
Miller, Amasa B., Brantford, O
Milliken, Robt., London, O
Morris, Harry C., Perth, O
Oke, John, Oka, Q
Orr, Wm. J., Montreal, Q
Patterson, Joshua R., Rochester, N.Y
Peever, R. G., Haley's Station, O
Pidgeon, E. Leslie, N. Richmond, Q
Pollock, Albert F.
Schwitzer, Wm. C., Ottawa, O
Shaw, Ernest J., Avonmore
Sincennes, Jean B., Masham, Ott. Co.
Smith, Wm. Arthur, Brussels
Squires, George
Stuart, Jas. Alex., Montreal, Q
Sykes, Chas. A., Cobden, O
Sykes, Thos. G., Cobden, O
Warden, Fred. A.
Watt, Robt. G., Lanark Village
Wilson, William
Ziegler, John A.

SECOND YEAR.

Acer, John H. A., Montreal, Q
Allison, T. Carlton, Dunbar, O
Beamish, Wm. J., Prescott, O
(1) Belton, Alf. J., Clayton, O
Benny, Walter W., Daillebout, Joliette Co., Q
(1) Bethel, Thomas G.
(1) Brace, Adam P.
Brown, —
Brunton, Jno. N., Marvelville, Russel Co., O
(1) Crombie, George L.
(1) Eagleson, Richd.
(1) Extence, George
Fairbairn, Andrew, Prescott, O
(1) Gilmore, George
(1) Gourlay, Wm. L.,
Graham, David J., Ashton, O
Graham, Sharon, Montreal, Q
Halpenny, Wm., Smith's Falls, O
Hamilton, W. J., Milverton, O
Harnwell, H. J., Kincardine, O
Hodgson, Jonathan R., Sawyerville, Q
Humphrey, J. W., Cowansville, Q
Jackson, Wm. P., Kingston, O
Jamieson, S. Dawson, Inverness, Clapham, O
(1) Keefer, Robert
Kelly, Edwin R., Pembroke, O
(1) Kelly, Matt.
Kennedy, John K.
(1) Leitch, Fred. A.
(1) McAmmond R. B.
(1) McAteer, Thomas G.
McCallum, Arthur L.
McConnell, J. H., Montreal, Q
McEwan, Sam. R., Rawdon, Q
Mason, Harry E.
(1) Millar, David D., Burgoyne, O
(1) Miller, Amasa B.
(1) Milliken, Robert
Mills, A. W., Kemptville, O
Mount, Allan E., Montreal, Q
Murray, Hazen T., King's Co., N.B.
(1) Oke, John
(1) Patterson, Joshua R.
(1) Peever, R. G.
(1) Pollock, Albert F.
Seller, Johnson, Sawyerville, Q
(1) Shaw, Ernest J.
(1) Sincennes, Jean B.
Sing, Charles R., Singhampton, O
Smith, Geo. E., Stoney Creek, O
Smith, Harry L, Currie's Crss'g, O
(1) Smith, Wm. Arthur
Smythe, Theo. A., Ulster Spring, Jamaica, W.I.
(1) Squires, George
(1) Sykes, Thomas G.
Vickery, Thos. J., Smith's Falls, O
Walker, Harry, Montreal, Q
(1) Watt, Robt. G.
Wilson, Alf. C., Hiliar, O
Wright, Robert, Braehburg

THIRD YEAR.

(2) Allison, T. Carlton
Armstrong, Sidney
Ball, George W., Montreal, Q
(2) Beamish, William J.
Belton, Alf. J.
Boshart, W. P.
(2) Brace, Adam P.
Brown, J. Livingston, Wood Bay, Man.

(1) Brown, Thomas
(2) Crombie, George L.
(1) Culp, Josephus
(2) Eagleson, Rich.
(2) Extence, George
Fish, Hy. A., Toronto, O
Fraser, Septimus, Montreal, Q
Gilmour, F. W., Almonte, O
(2) Halpenny, William
(2) Harnwell, H. J.
(2) Humphrey, J. W.
(2) Keefer Robert
(2) Leitch, F. A.
(2) McAmmond, R. B.
(2) McAteer, Thomas G.
(2) McConnell, J. H.
(2) McEwan, Sam. R.
(2) Mason, Harry E.
(2) Miller, Amasa B.
(2) Milliken, Robert
(2) Mills, A. W.
(2) Patterson, J. R.
(2) Seller, Johnson
(2) Shaw, Ernest J.
(2) Sing, Chas. R.
(2) Smith, George E.
(2) Smith, Harry L.
(2) Smith, Wm. Arthur
(2) Smythe, Theo. A.
(2) Sykes, Thomas G.
(2) Vickery, Thomas J.
(2) Walker, Harry
(2) Wilson, Alf. C.
(1) Wilson, Wm.
(2) Wright, Robert

FOURTH YEAR.

(3) Armstrong, Sidney
(3) Ball, George W.
2) Bethel, Thomas G.
(3) Boshart, William P.
(3) Brown, J. Livingstone
(1) Brown, Thomas
Calvert, Reuben, Vittoria, O
(3) Culp, Josephus
(2) Fairbairn, Andrew
(1) Gilmore, George
(2) Graham, David J.
(3) Harnwell, H. J.
(2) Hodgson, Jonathan R.
(2) Jamieson, S. Dawson
Johnson, W.
(2) Kelly, Edwin R.
(3) Leitch, Fred. A.
(3) Leitch, Hugh
(3) McAmmond, Robert B.
(3) McConnell, J. H.
(1) McCuaig, William
Mathers, Frank M., Lucknow, O
(2) Millar, David D.
(2) Murray, Hazen T.
(2) Peever, R. G.
(3) Sing, Charles R.
(2) Sykes, Charles A.

DONALDA DEPARTMENT.

SPECIAL COURSE FOR WOMEN.

Undergraduates.

FIRST YEAR.

Name.	*School.*	*Residence.*
Bickerdike, May C.,	M. G. H. S.,	Lachine, Q
Cameron, Mary T.,	Trafalgar Institute,	Kingston, O
Doull, Ethel M.,	McGill Normal School,	Montreal, Q
Galt, Annie P.,	Private Tuition,	Montreal, Q
Holden, Margaret L.,	G. H. S., St. John, N.B.,	St. John, N.B
O'Connor, Bertha V.,	M. G. H. S.,	Montreal, Q
Ross, Elizabeth,	Private Tuition,	Brucefield, O
Shaw, Ethel C.,	M. G. H. S.,	Montreal, Q
Smith, Annie Louise,	Misses Symmers, and Smith's School,	Montreal, Q
Stephen, Jennie,	Ottawa Coll. Inst.,	Ottawa, O
Walbridge, Mabel H.,	Mystic Model S. and P. T.,	Mystic, Q
Young, Laura A.,	Prince of Wales College,	Charlottetown, P.E.I

SECOND YEAR.

Name.	*School.*	*Residence.*
Brown, J. M.,	McGill Normal School,	Montreal, Q
Chalmers, L. H.,	Granby Academy,	Granby, Q
Denoon, Agnes H.,	G. H. S. M.,	Montreal, Q
Hammond, E. A.,	G. H. S. M.,	Montreal, Q
Henderson, G.,	Misses Symmers and Smith's School,	Montreal, Q
Hill, H. S. M.,	M. G. H. S.,	Montreal, Q
Hinds, C.,	Compton Ladies' College,	Actonvale, Q
Hurst, I. E.,	M. G. H. S.,	St. Lambert, Q
Hutchinson, M.,	Coll. Inst., St. Thomas,	St. Thomas, O
Krause, Louise,	Private Tuition,	Montreal, Q
Locke, W. A.,	M. G. H. S.,	St. Lambert, Q
McBurney, E. E.,	M. G. H. S.,	St. Lambert, Q
McCuaig, M.,	M. G. H. S.,	Montreal, Q
Macphail, Jeanette C.,	Prince of Wales Coll.,	Orwell, P.E.I
Mitchell, K.,	Trafalgar Inst.,	Montreal, Q
Nichols, A. W.,	M. G. H. S.,	Montreal, Q
Pinder, E. B.,	M. G H. S.,	St. Lambert, Q
Pitcher, W. J.,	M. G. H. S.,	Montreal, Q
St. James, L. M.,	McGill Normal S.,	Grande Ligne, Q
Watson, M. T.,	Renfrew H. S.,	Montreal, Q

THIRD YEAR.

Armstrong, L. E.,	Montreal, Q	Radford, Ethel S.,	Montreal, Q
Botterell, Florence,	Montreal, Q	Seymour, Clara,	Montreal, Q
Cameron, Susan E.,	St. John, N.B	Travis, Katharine,	Hampton, N.B
Cushing, Florence E.,	Montreal, Q	Watson, Rosalind,	Huntingdon, Q
Fraser, H. Alice,	Richmond, Q	Whiteaves, A. Maud,	Ottawa, O
		Wilson, Margaret,	Montreal, Q

FOURTH YEAR.

Brittain, Isabel,	Montreal, Q	McCoy, Emma C.,	Rockburn, Q
Brown, Jessie,	Montreal, Q	Mackenzie, Jane E. F.,	Montreal, Q
Campbell, Rosalia F.,	Montreal, Q	Ogilvy, Isabella,	Montreal, Q
Craig, Margaret,	Montreal, Q	Shaw, S. Louise,	Montreal, Q
Hargrave, Edith,	Sherbrooke, Q	Warner, Agnes L.,	St. John, N.B

B.A.

Angus, Frances R.	Pattison, M. L.
Binmore, Elizabeth	Raynes, Ethel G.
Jackson, Annie L.	Reid, Helen R. Y.
Leach, Milda E.	Ross, Jessie K.
McGregor, Elizabeth B.	Smith, G. Louise.
Macdonald, M. L.	

Partial Students.

A Student who is not an Undergraduate, or Graduate, is called a Partial Student.

The figure (1), (2) or (3), prefixed to a name, indicates that the Student takes a class in the corresponding year as well as in that where the name is found.

FIRST YEAR.

Anderson, Alice G., Ottawa, O
Bredin, Beatrice, Montreal, Q
Bredin, Bessie L., Montreal, Q
Carter, Mabel A., Montreal, Q
Dover, Mary V., Peterboro, O
Draffin, Isabel B., Almonte, O
Hanna, Ethel M., Montreal, O
Henderson, Margaret E., Montreal, Q
Hodge, Sadie A., Montreal, Q
Johnson, Sybil, Montreal, Q
Lovelace, Ida, Montreal, Q
Lovelace, Ruby, Montreal, Q
MacGregor, Janet G., N. Glasgow, N.S.
McLea, Rosalie, Montreal, Q
Silcox, Georgia, Montreal, Q
Simpkin, Lottie, Montreal, Q
Stevenson, Winifred, Montreal, Q
Tyrrell, Margaret J.
Warren, Hattie S., Montreal, Q

SECOND YEAR.

Burnett, C. H. (Mrs.), Montreal, Q
Claggett, Olive G. C., Montreal, Q
Coussirat, Eva J., Montreal, Q
Craig, Jennie, Montreal, Q
Dods, Mary J., Montreal, Q
Donahue, Clara
Gordon, Elizabeth M.
Guerin, Bellelle
Gurd, Effie S., Montreal, Q
Henderson, Elliot
Lowden, J. C., Montreal, Q
Lyman, Ethel L., Cote St. Antoine, Montreal, Q
(1) MacGregor, Janet G.
Macdonald, Ina, Montreal, Q
McGarry, Isabel
Monk, Millie J.
(1) Murphy, Fannie M.
Norris, Amy, Montreal, Q
Samuel, E. Maggie, Montreal, Q
Sharpe, Mima L.
(1) Silcox, Georgia
(1) Stevenson, Winifred
Walker, Laura F. M. Montreal, Q
Whyte, Clara M., Lancaster, O

THIRD YEAR.

Ashforth, Agnes M. England
Johnson, Helena, Montreal, Q
(2) MacGregor, Janet G.
Trenholme, Florence, Cote St. Antoine, Montreal, Q
(2) Walker, Laura F. M.

FOURTH YEAR.

(1) Anderson, Alice G.
(3) Ashforth, Agnes M.
Cantlie, Mary S., Montreal, Q
Finley, Greta, Montreal, Q
Greene, Florence M., Montreal, Q
McLea, Jean C., Montreal, Q
McMillan, S. E., England
MacNider, Constance A. M., Montreal, Q
Morrow, Edith
Reid, Ethel H., Montreal, Q
Schuyler, Estelle L., N. York, U.S.
(3) Walker, Laura F. M.

FACULTY OF APPLIED SCIENCE.

First Year.

*Angel, Frederick W., Newfoundland
Archibald, Harry P., Antigonish, N.S.
Aylmer, Arthur Lovell, Melbourne, Q
Barber, Charles Herbert, Georgetown, O.
Beatty, David Herbert, Sarnia, O.
Bell, John W., Montreal
Bell, Richard A. S., Mosgrove, O
Bickford, Oscar L., Toronto, O.
Blair, David E., Chicoutimi, Q.
Bovey, Edward P., Torquay, Devon, Eng.

Burnham, Harold B., Peterboro, O.
Campbell, Alexander, Ottawa, O.
Colson, Charles H., Montreal
Connal, William F., Peterboro, O.
Corriveau, Albert R.
*Craig, Arthur Frederick, Montreal
*Crawford, Arthur Ross, Montreal
Davidson, Shirley, Montreal
Desbarats, Charles H. H., Montreal
Drinkwater, Charles Graham, Montreal
Donkin, Frank W., Cow Bay, N.S.
Dougall, Ralph, Montreal
Edward, John R., Outremont, Q.
Ewan, Herbert M., Montreal
Finnie, Oswald S., Ottawa
Gisborne, Lionel L., Ottawa
Grant, George H., Victoria, B.C.
Guthrie, Norman G., Guelph, O.
Haycock, Richard L., Ottawa, O.
Hillary, George M., Whitby, O.
Holland, Cecil F., St Eleanors, P.E.I.
*Hibbard, Walter R., Frelighsburg, Q.
Kennedy, Lindsay R., Pembroke, O.
Lomas, Joseph A., Sherbrooke, Q.
Macdonald, James E., Providence, R.I., U.S.A.
Macdonald, Peter W., West Bay, N.S.
Macbean, Stanley L., Montreal
Mackenzie, Malcolm, Sarnia, O.
*Mackie, James D., Kingston Station, O.
MacKinnon, George D., Charlottetown, P.E.I.
Macleod, George R., Uigg, P.E.I.
May, Lorne W., Ottawa, O.
McDermott, Michael S., Montreal
McKibbin, Frederick W. J., Peterboro, O.
McRae, John B., Ottawa, O.
Mitchell, Norman C., Halifax, N.S.
Mitchell, Norman S., Montreal
Newcombe, Avard B., Lakeville, N.S.
Packard, Frank L., Montreal
Paradis, Paul, St. Johns, Q.
Pitcher, Norman C., Montreal
Primrose, Harry G., Pictou, N.S.
*Reaves, Campbell, Montreal
Reid, Robert G., Montreal
*Ramsay, William A., Montreal
Ross, John K., Montreal
*Scott, James H., Outremont
*Seagram, Edward F., Waterloo, O.
Simpson, Colligan D., Westville, N.S.
Sise, Charles F., Montreal
Staples, Clark, Balsam Lake, O.
Stovel, Russell W., Toronto, O.
Suter, Robert W., Carleton Place, O.
Symmes, Howard C., Aylmer, Q.
Thompson, Fred. W., Coaticook, Q.
Thomson, Clarence, Montreal
Thomson, Henry N., Quebec, Q.
Thomson, Henry S., Quebec, Q.
Travis, Berton C., Hampton, N.B.
Turnbull, John M., Montreal
*Vickerson, Herbert J., Bedeique, P.E.I.
Wade, Francis K., Rickmansworth, Herts, Eng.
Walters, Morley, Hull, Q.
Weldon, Robert P., St. John, N.B.
Yorston, Louis, Pictou, N.S.

SECOND YEAR.

Alley, Gordon T., Charlottetown, P.E.I.
Atkinson, George A. S., Montreal
Archibald, William M., Truro, N.S.
Balfour, Reginald H., Montreal
Bayfield, Henry A., Charlottetown, P.E.I.
Bishop, James S., Montreal
Buchanan, Fitzherbert P., Montreal
Chase, Harry A., Kentville, N.S.
Clark, Ernest R., Stratford, O.
Courtice, Francis E., Port Perry, O.
Denis, Théophile, Montreal
Dougall, George M., Montreal
Dufresne, Alexander R., Ottawa, O.
Ferguson, Thomas, Peterboro, O.
Gill, James L. W., Little York, P.E.I.
Green, Joseph S. R., Montreal
Hare, George G., St. John, N.B.
Howe, Ralph E., Hatley, Q.
Hunter, John William, Kingston, O.
Jaquays, Homer M., Montreal
Johnson, William S., Clapham, Q.
Kenny, Thomas F., Ottawa, O.
Killaly, Hamilton McM., Morrisburg, O.
*Lewis, George G., Montreal
McCallum, Arthur, Maxwell, O.
McDougall, William, Ormstown, Q.
McLaren, Duncan T., Montreal
Metcalfe, Thomas H., Montreal
Mussen, Horace W., Aurora, O.

Ogilvie, William M., Cumming's Bridge, O.
Olive, Walter McH., St. John, N.B.
Reinhardt, Carl, Montreal
Rutherford, Gordon S., Montreal
Rutherford, Stewart F., Montreal
Skill, Herbert G., Cobourg, O.
Smaill, Albert E., Montreal
Stewart, Robert H., Montreal
*Taylor, Jeremy B. F., Ottawa, O.
Walkem, George A., Kingston, O.
Webb, William M., Petrolia, O.
White, Frank H., Montreal
Wright, Charles H., Renfrew, O.

THIRD YEAR.

Angus, Wm. F., Montreal
Askwith, Wm. R., New Edinburgh, O.
Baker, Hugh C., Ottawa, O.
Becket, Frederick M., Montreal
Blackburn, Robert L., Ottawa, O.
Boright, George N., Sutton, Q.
Carter, Wm. F., Cowansville, Q.
Currie, Wm., Montreal
Dobson, Gilbert S., Dorchester, N.B.
Dougall, Wilfrid, Montreal
Greig, Alex. R., Montreal
Griffin, Michael E., Georgetown, P.EI.
Gwillim, John C., Winnipeg, Man.
Hart, Orobio C., Cowansville, Q.
Johnson, Edward P., Ottawa, O.
King, Robert O., Montreal
McDougall, George D., Amherst, N.S.
McDunnough, Ralph B., Montreal
McNaughton, Peter, Huntingdon, Q.
Moodie, Kenneth, Chesterville, O.
Nivin, Thomas F., Montreal
Primrose, John, Pictou, N.S.
Robins, Sampson P., Montreal
Rogers, Frank D., Montreal
*Rutherford, Forrest, Montreal
Scott, Alfred, Port Hope, O.
Trenholme, Henry R., Montreal Jct., Q
Turner, John A., Hamilton, O.
Van Barneveld, Chas. E, Grindstone, Magdalen Islands, Q.
Wilkin, Francis A., Calgary, N.W.T.
White, Walter T., St. John, N.B.

FOURTH YEAR.

Brodie, Alexander, Quebec
Cole, Arthur A., Montreal
Collyer, Alfred, Playden, Sussex, Eng.
Connor, Matthew F., Ottawa
Costigan, James S., Montreal
Darling, Edward, Montreal
Dawson, Alex. S., Pictou, N.S.
Duff, Wm. A., Montreal
Dyer, Leonard W. E., Montreal
Gunn, Robert A., Montreal
Lambert, Frank, Woodstock, O.
Larmonth, John H., Ottawa, O.
Leach, Wm. W., Montreal
Lonergan, Gerald J., Buckingham, Q.
Longworth, Chas. H. B., Charlottetown, P.E.I.
Mackay, Henry M., Pictou, N.S.
Molson, Herbert, Montreal
Morris, John W., Wallace, N.S.
Mudge, Arthur L., Montreal
Pitcher, Frank H., Montreal
Scammell, John K., St. John, N.B.
Scott, Walter M., Charlottetown, P.E.I.
Whiteside, Orton E. S., Metcalfe, O.

POST GRADUATE.

Adams, Walter C., Montreal
Featherston, John H., Montreal
Herdt, Henry, Montreal
Kingston, Charles B., Montreal
Ogilvy, Robert F., Montreal
*Westwood, Geo. W. J., Nanaimo, B.C.

*Partial Student.

FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

FIRST YEAR.

Craik, Jas.....Allan's Corners, Q
Dell, H... ... .London, O
Greer, J.....Ormstown, Q
Judge, J. J .....Troy, N.Y
Kee, F. W..... .....Ormstown, Q
McCarry, J. J.....Montreal
MacKeracher, G. P..Howick, Q
McNider, S .....Little Metis, Q
Morris, E. H .....Mexico, Mo
Ness, J..... .....Howick, Q
Newcomb, H. H.....Greenfield, Mass.
Parker, J. C.....Montreal
Richards, S. C.....South Wales, Eng.

SECOND YEAR.

Baldwin, B. K .....Philadelphia, Pa.
Boutelle, C. A .....Danville, Q
Clarke, H. D.....Plainfield, Mass
Cowan, A..... .....Montreal
Cutting, J. C.....Boston, Mass
Fraser, A. D.....Montreal
Hargrave, J. C.....Medicine Hat, Ass
Inglis, W..... .....Granby, Q
Jones, W. V.....Wolfville, N.S
Lehnert, E. H.....Clinton, Mass
Reagan, S. M.....Mexico, Mo
Thurston, E. C.....Montreal
Zink, C. H., jr.....Philadelphia, Pa

THIRD YEAR.

Anderson, B.....Montreal
Baker, G. P.....Binscarth, Man
Buchan, J. A.....L'Orignal, O
Cannon, A.....Greenfield, Mass
Carey, E. J.....North Adams, Ms
Cleveland, H. R.....Danville, Q
French, C.....London, Eng
Grattan, R. H.....Preston, Minn
Hall, A. H.....Leeds, Q
Hollingsworth, J. B...Hawkesbury, O
Moore, A. E.....Stanbridge E., Q
Morin, W..... .....Belle Rivière, Q
Mulvey, C. J.....Mooers, N.Y
McAlpine, D.....Vankleek Hill, O
McGillivray, J. D.....Laggan, O.
McLeod, J. H.....Howick, Q
Shaw, J. R .....Honolulu, H.I
Salley, J. L.....Skowhegan, Me
Solandt, J. V.....Inverness, Q
Thomas, R .....Middlebush, N.J
Walsh, F. W.....Ormstown, Q

COLLEGES AFFILIATED IN ARTS.

MORRIN COLLEGE, QUEBEC.

Undergraduates.

Fraser, Ethel, 4th year,
McWilliam, Bessie, 2nd year,
Bishop, Cyril
Drum, Harcourt
Langlois, Peter
Taylor, William B.

ST. FRANCIS COLLEGE, RICHMOND

Undergraduates.

McDougall, Cairnie L., Melbourne, Q
Crack, Herbert A., Kingsbury, Q
Ewing, Wm. John, Melbourne, Q
Wadleigh, Wm. W., Kingsey, Q
McBurney, Chas. E., Sawyerville, Q
Pocock, Charles A., Hillhurst, Q

Fisher, Ernest M.,	Melbourne, Q	McRae, Robert H.,	Cookshire, Q
Frye, Alfred W.,	Windsor Mills, Q	McRae, Jas. T.,	Cookshire, Q
McIver, Evander W.,	Richmond, Q	Watson, Wm.,	Kingsbury, Q
Paterson, Edwin R.,	Richmond, Q	Coburn, David N.,	Upper Melbourne, Q
Pope, Charles H.,	Sydenham Place, Q	Paterson, Wm. F.,	Richmond, Q
Tanner, Chas. A. H.,	Richmond, Q	Vaudry, Mary O.,	Shefford Mt., Q
Tanner, Wm. P.,	Richmond, Q		

STANSTEAD WESLEYAN COLLEGE.

Undergraduates.

Bryant, Flora A.,	Stanstead, Q	Van Vliet, Leonie,	Lacolle, Q
Rugg, M. Alice,	Stanstead, Q	Terrill, H. Maud,	Stanstead, Q
Howard, Cath. M. H.,	Philipsburg, Q	MacNaughton, Wm. G.,	Huntingdon, Q
McDuffee, Mary E.,	Stanstead, Q	Duboyce, Percy C.,	Knowlton, Q
Ryan, Wm. A.,	Three Rivers, Q	Whitcher, Herbert,	Derby Line, Vt., U.S.
Ryan, George,	Three Rivers, Q	Vaughan, Fred. W.,	Ayer's Flat, Q
Nunns, E. J.,	Coaticook, Q		

SUMMARY.

Students in Law, McGill College			38
" in Medicine, "			350
" in Arts :— "			
Men	Graduates	10	352
	Undergraduates	121	
	Partial	106	
Women	Graduates	11	
	Undergraduates	53	
	Partial	51	
Total in Arts including Students from other Faculties			599
Students in Arts, Morrin College			6
" " " St. Francis College			19
" " " Stanstead Wesleyan College			13
" " Applied Science, McGill College :—			
	Undergraduates		183
	Partial and Graduates		
" Veterinary Science			53
			1,014
Deduct entered in two Faculties			1
			1,013
McGill Normal School, Teachers-in-training			136
Total			1,149

Donations to Library and Museum

DONATIONS TO THE LIBRARY.

1893-94.

From Canterbury College, New Zealand: Calendar for 1892-93.

From W. Trelease, Missouri Botanical Garden, St. Louis: Fourth Annual Report, 1892.

From Sir J. W. Dawson: The Hawks and Owls of the United States, in their relation to Agriculture.

From the Weather Bureau, Washington: Weather Maps for April and May.

From the Brooklyn Institute of Arts: Fourth Year Book, 1891-92.

From the State Board of Agriculture, Massachusetts: 40th Annual Report, 1892.

From the University of Sydney, N.S.W.: Catalogue of the Library, 1892.

From the University of London: Catalogue for 1893-94.

From Sir J. W. Dawson: Proceedings of the American Association for the Advancement of Science, 40th meeting held at Washington, 41st meeting held at Rochester; Bulletin of the United States Fish Commission, 1890; National Electrical Light Association, 14th convention held at Montreal, 1891; 15th held at Rochester, 1892; U. S. Commission of Fish and Fisheries, Commissioners' Report, 1888; Smithsonian Report U.S. National Museum, 1890; Missouri Geological Survey, Report on Iron Ores, Winslow; Report on Coal Deposits of Missouri, 1891; Report of the Minister of Education, Ontario, 1892; Leading Poets of Scotland by W. J. Kaye; Proceedings of the Manchester Literary and Philosophical Society; Memoir of J. P. Joule; Principles of Education, by Malcolm MacVicar.

From Dr. Darey: Cruel Persecutions of the Protestants in the Kingdom of France, by Jean Claude.

From the Smithsonian Institution: Proceedings of the U.S. National Museum, 1890-91; Bulletin of ditto, No. 40, and 7 pamphlets, Entomology, etc.

From the author, Rev. George Brown, D.D.: Grammar and Dictionary of the Duke of York Dialect, New Britain; The Gospel according to St. Mark, in the same.

From Sir J. W. Dawson: Smithsonian report of the U. S. National Museum, Geology of Weymouth, Portland and County of Dorset, by D. Robert Daman; the Balance of Physics, by Edward Daigh; Scripture Readings for High and Public Schools, Ontario.

From the Medical Faculty: Histoire du Canada et des Canadiens, par M. Bibaud; Causes Politiques Célèbres du XIX Siècle, Procès du Duc d'Enghien, and a number of pamphlets and books in paper covers.

From the Provincial Government of Quebec: Arrêts en Conseil ayant Force de Loi dans la Province de Québec, 1893.

From Sir J. W. Dawson: Transactions of the Manchester Geological Society, Vol. 22, part 8.

From the Woodwardian Museum, Cambridge, Eng.: 27th Annual Report of the Museum and Lecture Room Syndicate, 1892.

From Hon. Arthur Benwick, M.D., Executive Commissioner for N.S.W. and Chicago: an Australian Language as spoken by the Awabakæ, the people of Awaba or Lac Macquarie, by L. E. Threkeld, 1892.

From the U.S. War Department: Professional Papers of the Corps of Engineers of the U. S. Army, No. 26, 1892.

From the Dominion Government, Ottawa; Debates of the House of Commons, Vol. 36, 1893; Sessional Papers, Vol. 25, No. 7, 1892; "Public Works," Vol. 25, No. 7, 1892; "Railways and Canals," Maps—Public Works, 1891-92; Orders-in-Council of the Imperial Government, together with Treaties negotiated between H. M. the Queen and Foreign Powers; The Statistical Year Book of Canada for 1892; Analytical Index to Customs Tariff of Canada; Journal of the Senate of Canada, Vol. 27, 1893; Census of Canada, A, Vol. 1, 1890-91; Sessional Papers No. 1, Vol. 26, 1893; Journal, House of Commons, Canada, Vol. 27, 1893, Appendix.

From the Trustees of the Peabody Institute, Baltimore: Catalogue of the Library of the Peabody Institute, Part 5 S-Z.

From the Astronomer Royal: Greenwich Observations, 1890; Observations of the Time of Swing of the Indian Invariable Pendulum, 1889; Annals of the Cape Observatory, Vol. I., Parts 2, 3 and 4.

From the Geological Survey of New Jersey: Gasteropoda and Cephalopoda of the Raritan Clays and Greensand Marls of New Jersey.

From the University of Edinburgh: Calendar for 1893-94.

From Glasgow University: Calendar for 1893-94.

From the Dominion Educational Association: Proceedings of the 1st Convention held at Montreal, July, 1892.

From the Institution of Civil Engineers: Charter and List of Members, 1893, Minutes and Proceedings of the Institution of C.E., Vol. CXII., 1892-93, Part II.

From the Smithsonian Institution: Smithsonian Collections, Vol. 36, 1893.

From the University of Sydney, N. S. W.: Calendar for 1893.

From the University of Manitoba; Calendar for 1893-94.

From the Royal Colonial Institute: Proceedings, Vol. XXIV., 1892-93.

From the New Zealand University, Wellington, N.Z.: Calendar for 1893-94.

From the Bureau of Education, Washington: Report of the Commissioners of Education, 1889-90.

From the American Institute of Mining Engineers, N. Y.: Transactions, Vol. XXI., 1893.

From the Institution of Civil Engineers, London, Eng.: Proceedings, Vol. CXIII., 1893.

From Sir J. W. Dawson: 2nd Report of the Bureau of Mines, Ontario, 1892; Jamaica at the Columbian Exposition, 1893; U.S. Geological Survey, Mineral Resources of the U.S. for 1891; do., 11th Annual Report, Part 1 Geology, Part 2 Irrigation; United States Geological Survey, Monograph, Vol. 17; the Flora of the Dakota Group, by L. Tesquereux; ditto, Monograph, Vol. 18 Gasteropoda and Cephalopoda of the Raritan Clays of New Jersey; ditto Vol. 20; Geology of the Eureka District, Nevada, by Arnold Hague, 1892, Maps to accompany ditto. Report of the U.S. National Museum for the year ending, June 30th, 1891. Proceedings of the Boston Society of Natural History, Vol. XXV; Iowa Geological Survey, Vol. I. 1st Annual Report for 1892; Proceedings of the Convention of the Dominion Educational Association, July 1892.

From Messrs. Macmillan & Co., London: Das Wirtshaus im Spessart Mardun, von Wilhelm Hanff.

From the New York Academy of Sciences: Transactions, Vol. XII., 1892.93.

From the Royal Society of Canada: Proceedings and Transactions, Vol. X.

From the Geol. and Nat. History Society of Minnesota: The Metaspenniæ of the Minnesota Valley, 1892.

From the Bureau of Ethnology: 8th Annual Report of the Bureau.

From the Victoria University, Toronto: Calendar for 1893.

From Dr. D. J. Leech (Master of the Council of Owens College): Owens College, its Foundation and Growth.

From the Aberdeen University: Calendar for 1893-4.

From Peter Redpath, Esq.: Quaritch's Catalogue, 7 vols.; Macmillan's Bibliographical Catalogue; Picturesque Canada; Statesman's Year Book, 1874-93; The Book-worm, 5 vols; Fleming, The Intercolonial; English Catalogue, 1835-93, 8 vols.; Sonnenschein, The Best Books; Vallée, Bibliographie des Bibliographies; Stevens' Facsimiles, 4 vols.; Murray's English Dictionary, part 7; Annual Register, 1892; Reiss & Steubel, Necropolis of Ancon; Index to the "Times," 218, vols.; Symond's Michael Angelo; Catalogue of The London Library, with Index; Hazlitt's Collections, and Gray's Index to do, 6 vols.; Report of Royal Commission on Hist. MSS.; Calendars of State Papers; Acts of Privy Council; Chronicles and Memorials of Gr. Brit.; British Museum Catalogues; Facsimiles of National MSS., Scotland; Facsimiles of National MSS., England; Hakluyt Society pubs; Oxford Hist. Society; Holbein Society; Royal Society, Catalogue of Scientific Papers; Chaucer Society, 59 vols.; Rousseau, Œuvres, 1827; Waring's Art Treasures, 1858; Milton's Works, Boydell, 1794-7 3 vols. fo.; Hodgson's Letters from North America, 1824; White's Sketches from North America, 1870; Warburton's Canada, 1849; Statesman's Year-Book, 1864-73; Coffin, 1812, The War and its Moral; Garneau, History of Canada, 1860; Watt's Bibliotheca Britannica, 1824; Lowndes's Bibliographer's Manual; British Catalogue, Index; English Catalogue; Power's Handy Book about Books; Hains' Repertorium, 1826-38; Panzer's Annales Typ. 1789-1805; Panzer's Annalen d. Deutsch. Lit., 1785-1805; Teleng's Bibliotheca; Hazlitt's Hand-book to Popular Literature; Buck's Views; Pyne's Royal Residences; Boydell's River Thames; Dictionary of the Chinook Jargon, or Indian Trade Language of the North Pacific Coast, p. c.

From W. C. McDonald, Esq., Archimedes, Opera Omnia; Liebig, Annalen der Chemie, 276 vols.; Gilbert, Poggendorff and Wiedemann, Annalen der Physic und Chemie, 280 vols.; Annals of Electricity, 10 vols.; Barr, Opera; Berliner Akademie der Wissenschaften, Histoire, Abhandlungen, Sitzungsberichte, etc., from 1745-1893; Braun, Abhandlungen; Beltzmann, do; Fourier, Travaux; Foucault, Travaux; Gauss, Werke; Gordon, Physical Treatises; Green, Essay; Guericke, Experimente; Helmholtz, Abhandlungen, 2 vols.; Huygens, Œuvres, 5 vols.; Kirchhoff, Abhandlungen; Lang, Lummel, Siemens, Ohm and others, Abhandlungen; Newton, Philosophia Naturalis; Rumford, Werke, 5 vols.; Repertorium fur Experimental Physik, 27 vols.; Paris, Institut de France, Histore et Mémoires, 107 vols.; Comptes Rendus, 117 vols.; Torricelli, De Sphæra; Weber. Wellenlehre; do, Werke, 5 vols.; Wiedemann, Electricitat, 5 vols.; Wiener Akademie, Abhandlungen, Sitzungs-Berichte, etc., 101 vols.; Ostwald and Van Hoff, Zeitschrift fur physical. Chemie, 12 vols.; do, fur Instrumentenkunde, 13 vols.; Journal de Physique, series I., II., and III., complete.

From Five Graduates: Curtis' Botanical Magazine, vols. 1-36, and Index.

From New York Academy of Sciences: Annals, vol. 8, Nos. 1, 3.

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UNDER THE SUPERINTENDENCE OF McGILL UNIVERSITY, MONTREAL, AND BISHOP'S COLLEGE, LENNOXVILLE.

SESSION 1894-95.

The Joint Board of Representatives of McGill University and the University of Bishop's College is prepared to organize and superintend courses of Lectures and Classes in populous centres for English-speaking audiences in the Province of Quebec.

OBJECT.

The purpose of the Local Lectures is to provide the means of higher education for persons of all classes and of both sexes engaged in the regular occupations of life. To obtain this object, the Lectures will be organized upon the general lines which have been worked out successfully from twenty years' experience in England.

PLAN OF THE LECTURES.

In order to make the teaching at the same time attractive and thorough, a special method is followed.

1. The courses consist of ten weekly lectures, each lecture occupying an hour.

2. For about an hour preceding or following each lecture, a Class is held for those students who wish to study the subject more thoroughly. The teaching in the class is conversational, and its object is to enable the Lecturer to answer questions or solve difficulties which have occurred to students, and to give advice as to text-books and other means of studying the subject.

The ten Lectures and Classes, which may be given in the three months before or three months after Christmas, form a continuous course on one subject.

3. In order to enable Students to follow the lecture readily and to carry away the substance of it, a printed syllabus in pamphlet form is prepared beforehand by the Lecturer for the use of Students.

4. Questions (printed in the syllabus) are set upon each Lecture. Those who desire to answer the questions write their answers at home during the week, and forward them to the Lecturer for correction and comment.

5. At the end of the Course an examination is held by the Lecturer, and another Examiner appointed for the purpose by the Joint Board of the Universities. The examination is not compulsory. Only those are admitted to it who have attended the Lectures and Classes to the satisfaction of the Lecturer, and have done such an amount of weekly paper work as the Lecturer may have required.

A list of the Candidates who have satisfied the Lecturer and Examiner is published, the names being arranged in alphabetical order. The list also indicates those who are recommended both by the Lecturer and Examiner for special distinction. Certificates of Passing and of Distinction are granted, based upon (1) the Lecturer's report of the weekly work, (2) the final examination.

It will be seen that this system is adapted at the same time to persons who desire merely a general acquaintance with the subjects taught and to Students who are anxious to make a more thorough study. The majority of the courses in the English system have been given in the evening, as the fundamental idea throughout has been education for busy people. The audiences have included persons drawn from all ranks of society and of the widest diversity of previous education and training.

SUBJECTS OF THE LECTURES.

The Universities expect to provide Lectures on subjects connected with :—

I. English Language and Literature.
II. History and Archæology.
III. Logic, Mental and Moral Philosophy, and Political Science.
IV. Chemistry and its applications.
V. Astronomy.
VI. Electricity and other branches of Physical Science.
VII. Botany and Zoology, Animal and Vegetable Physiology.
VIII. Mineralogy and Geology.

APPOINTMENT OF LECTURERS.

In accordance with the requirements of the General Council for the extension of University teaching, Lecturers are appointed by the Joint Board only upon recommendation by a University and after inquiry as to special qualifications and approval of the syllabus submitted. The choice of a lecturer and subject from the list approved by the Board is made in each case by the Local Centre concerned.

ORGANIZATION OF A CENTRE.

When it is desired to establish a course of Lectures, a Local Committee should first be got together, and a guarantee fund formed sufficient to cover the expenses of the Course. The Local Committee undertakes all responsibility for hire of

rooms, lighting, printing and sale of tickets, etc.: it fixes the price of tickets according to the size and class of audience expected, with a view to making the Lectures self-supporting, and chooses the subject and the Lecturer, communicating its wishes to the Joint Board through its Secretary.

EXPENSES OF A COURSE.

The payment to the Joint Board for a complete course of Ten Lectures and Classes, with examination, is $150. In cases where a lecturer from a distance is chosen, or much apparatus is used, travelling expenses and the cost of hiring apparatus will be an extra charge.

Further information may be obtained from the Secretary to the Joint Board, Professor J. Cox, McGill University, Montreal.

May, 1894.

REGULATIONS

CONCERNING

THE COLLEGE GROUNDS AND ATHLETICS.

All matters relating to the management of the College grounds and of Out-Door Athletics and Sports are under the control of a Committee consisting of:

One Governor.
The Principal.
One Member of the Faculty of Arts.
One Member of the Faculty of Applied Science.
One Member of the Faculty of Law.
One Member of the Faculty of Medicine.
One Member of the Faculty of Comp. Medicine.
One Graduate.
One Undergraduate, member of the Football Club.
One Undergraduate, member of the Tennis Clubs.
One Undergraduate, member of the Cricket Club.
One Undergraduate, member of the Hockey Club.
The President of the Athletic Association.

The following extracts are made from the rules and regulations of the Committee for the guidance of Members of the University and the several Athletic Clubs and Associations which are from time to time permitted to use the grounds:

The University and McTavish Street gates shall be closed between 6 p.m. and 7 a.m. on week days and the whole day on Sundays.

The Sherbrooke Street gates shall be closed between 10 p.m. and 6 a.m.

Such persons as are entitled to use the Grounds shall be provided with tickets renewable each year.

Those entitled to tickets are the Members of the University and prominen Benefactors, and the families of Governors and Professors.

The several Clubs shall be permitted to issue special tickets (without charge), entitling the holders to admission to the Grounds for the purpose of viewing matches, or for other special occasions of public interest.

All Students desirous of taking part in football matches, or otherwise engaging in violent athletic contests, must pass a medical examination, to be held under the direction of the Superintendent of the Gymnasium. A complete record of all such examinations shall be kept by the Superintendent or other officer appointed to this duty.

All Clubs must submit their Regulations, Rules and By-Laws, and any changes in the same, for the approval of the Committee. They must make application for the use of such portions of the Grounds as they require and for any special privileges.

The Athletic Association must submit its programme for each year for the approval of the Committee.

BENEFACTORS OF

McGill University, Montreal.

1. GENERAL ENDOWMENTS AND SUBSCRIPTIONS FOR THE UNIVERSITY AND THE FACULTY OF ARTS.

1. ORIGINAL ENDOWMENT, 1811.

THE HONORABLE JAMES McGILL, who was born at Glasgow, 6th Oct., 1744, and died at Montreal, 19th Dec., 1813, by his last will and testament, under date 8th January, 1811, devised the Estate of Burnside, situated near the City of Montreal, and containing forty-seven acres of land, with the Manor House and Buildings thereon erected, and also bequeathed the sum of ten thousand pounds in money unto the "Royal Institution for the Advancement of Learning," a Corporation constituted in virtue of an Act of Parliament passed in the Forty first Year of the Reign of His Majesty, King George the Third, to erect and establish a University or College, for the purpose of Education and the advancement of learning, in the Province of Lower Canada, with a competent number of Professors and Teachers to render such Establishment effectual and beneficial for the purposes intended; requiring that one of the Colleges to be comprised in the said University should be named and perpetually be known and distinguished by the appellation of "McGill College."

The value of the above-mentioned property was estimated at the date of the bequest at $120,000

2. UNIVERSITY BUILDINGS, ETC.

THE WILLIAM MOLSON HALL, being the west wing of the McGill College buildings with the connecting Corridors and Class Rooms, was erected in 1861, through the munificent donation of the founder whose name it bears.

THE PETER REDPATH MUSEUM, the gift of the donor whose name it bears, was announced by him as a donation to the University in 1880, and formally opened August, 1882.

THE WILLIAM C. McDONALD Physics building and equipment of same, the gift of William C. McDonald, Esq., announced by him as a gift to the University in 1890, and formally opened February, 1893.

Lots for University buildings adjoining the College grounds fronting on McTavish St, presented by J. H. R. Molson, Esq.,—$42,500.

THE PETER REDPATH LIBRARY BUILDING, the gift of Peter Redpath, Esq., announced by him as a gift to the University in 1891, and formally opened Oct. 31st, 1893.

3. THE DONALDA ENDOWMENT FOR THE HIGHER EDUCATION OF WOMEN.

This endowment, given by the Honorable Sir Donald A. Smith of Montreal, is for the education of women in the subjects of the Faculty of Arts, up to the standard of the examination for B.A., in classes wholly separate, to constitute a separate Special Course or College for women,—$120,000.

4. ENDOWED CHAIRS, ETC.

THE MOLSON CHAIR OF ENGLISH LANGUAGE AND LITERATURE, in 1856, endowed by the Honorable John Molson, Thomas Molson, Esq., and William Molson, Esq.,—$20,000, and supplemented in 1892 by John H. R. Molson, Esq., with a further sum of $20,000. Total $40,000.

The Peter Redpath Chair of Pure Mathematics (founded as Chair of Natural Philosophy), in 1871, endowed by Peter Redpath, Esq.,—$20,000.

The Logan Chair of Geology, in 1871, endowed by Sir W. E. Logan, LL.D., F.R.S., and Hart Logan, Esq.,—$20,000.

The John Frothingham Chair of Mental and Moral Philosophy, in 1873, endowed by Miss Louisa Frothingham,—$20,000.

The Major Hiram Mills Chair of Classics, in 1882, endowed by the last will of the late Major Hiram Mills of Montreal,—$42,000.

The David J. Greenshields Chair of Chemistry and Mineralogy, in the Faculties of Arts and Applied Science, in 1883, endowed by the last will of the late David J. Greenshields, Esq., of Montreal, with the sum of $40,000, half of which is devoted to the Faculty of Arts.

The William C. McDonald Chairs of Physics, endowed by William C. McDonald, Esq., in 1890,—$50,000; in 1893, $50,000. Total, $100,000.

The John Frothingham Principal Fund, to be invested for the endowment of the Principalship of the University; founded by the Rev. Frederick Frothingham and Mrs. J. H. R. Molson,—$40,000.

The Charles Gibb Botanical Endowment, received by subscriptions, the endowment to be invested by the Board of Governors and the income devoted to the maintenance of the Chair of Botany in the Faculty of Arts, and to procuring appliances therefor.

Miss Elizabeth C. Orkney,—$2,000.
Mrs. Catherine Hill,— $200.

W. C. McDonald Physics Building Maintenance Fund, endowed by W. C. McDonald, Esq., to be invested and interest used to meet the expense of Heating, Lighting, Insurance, and salary of caretaker,—$40,000.

5. ENDOWMENT FOR PENSION FUND.

This endowment is given to be invested and kept as a Special Fund, the revenue arising from which to be used exclusively for providing Pensions or Retiring Allowances for members of the teaching staff of the Faculties of Arts and Applied Science.

Hon. Sir Donald A. Smith,	$50,000 00
John H. R. Molson, Esq.,	50,000 00
William C. McDonald, Esq.,	50,000 00
Total	$150,000 00

6. EXHIBITIONS AND SCHOLARSHIPS, ETC.

The Jane Redpath Exhibition, in the Faculty of Arts,—founded in 1868 by Mrs. Redpath, of Terrace Bank, Montreal, and endowed with the sum of $1,667.

The McDonald Scholarships and Exhibitions, 10 in number, in the Faculty of Arts—founded in 1871, and endowed in 1882 with the sum of $25,000, by William C. McDonald, Esq.

The Charles Alexander Scholarship, for Classics—founded in 1871 by Charles Alexander, Esq. Endowed in 1893 with the sum of $2,000.

The Barbara Scott Scholarship for Classical Language and Literature—founded by the last will of the late Miss Barbara Scott of Montreal, in the sum of $2,000, in 1884.

The George Hague Exhibition—founded in 1881 in the Faculty of Arts.—Annual value, $125.

The Major Hiram Mills Medal and Scholarship—in the Faculty of Arts, founded by the will of the late Major Hiram Mills of Montreal, and endowed with the sum of $1,500.

T. M. Thompson, Esq.—$250 for two Exhibitions in September, 1871; $200 for two Exhibitions in 1872,—$450.

Rev. Colin C. Stuart—for the "Stuart Prize in Hebrew,"—$60.

The Taylor Scholarship—founded in 1871, by T. M. Taylor, Esq.—Annual value $100.—terminated in 1878.

Professor Alexander Johnson—for Scholarship for 3 Sessions, terminated 1886-87,—$350.

Her Majesty's Commission for the Exhibition of 1851—Nomination Scholarships for 1891 and 1893, value £150 annually, tenable for two years.

The Philip Carpenter Fellowship—founded by Mrs. Philip Carpenter, for the Maintenance of a Post-Graduation Teaching Fellowship or Scholarship in Natural Science or some branch thereof in the Faculty of Arts of McGill College, endowed with the sum of $7,000.

A Lady, to provide four free tuitions in the Faculty of Arts for sessions 1892-3 and 1893-4.

7. ENDOWMENTS OF MEDALS AND PRIZES.

In 1856 Henry Chapman, Esq., founded a gold medal, to be named the "Henry Chapman Gold Medal," to be given annually in the graduating class in Arts. This Medal was endowed by Mr. Chapman in 1874, with the sum of $700.

In 1860 the sum of £200, presented to the College by H.R.H. the Prince of Wales, was applied to the foundation of a Gold Medal, to be called the "Prince of Wales Gold Medal," which is given in the graduating class for Honour Studies in Mental and Moral Philosophy.

In 1864 the "Anne Molson Gold Medal" was founded and endowed by Mrs. John Molson, of Belmont Hall, Montreal, for an Honour Course in Mathematics and Physics.

In the same year the "Shakespeare Gold Medal," for an Honour Course, to comprise and include the works of Shakespeare and the Literature of England from his time to the time of Addison, both inclusive, and such other accessory subjects as the Corporation may from time to time appoint, was founded and endowed by citizens of Montreal, on occasion of the three hundredth anniversary of the birth of Shakespeare.

In the same year the "Logan Gold Medal," for an Honour Course in Geology and Natural Science, was founded and endowed by Sir William Logan, LL.D., F.R.S., F.G.S., etc.

In 1874 a Gold and a Silver Medal were given by His Excellency the Earl of Dufferin, Governor General of Canada, for competition in the Faculty of Arts, and continued till 1878.

In 1875 the "Neil Stuart prize in Hebrew" was endowed by Neil Stuart, Esq., of Vankleek Hill, in the sum of $340.

In 1880 a Gold and Silver Medal were given by His Excellency the Marquis of Lorne, Governor General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science: continued till 1883.

In 1883 a Gold, Silver and Bronze Medal were given by R. J. Wicksteed, Esq., M.A., LL.D, for competition in "Physical Culture," by Students in the Graduating Class and 2nd year, who have attended the University Gymnasium. The Gold Medal was continued to 1889 and the Silver and Bronze have been continued to date.

In 1884 a Gold and a Silver Medal were given by His Excellency the Marquis of Lansdowne, Governor General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science, continued till 1888.

In 1888 a Gold and a Silver Medal were given by His Excellency Lord Stanley, Governor General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science.

The "Charles G. Coster Memorial Prize" for general proficiency—given annually by Colin H. Livingstone, Esq., B.A., founded in 1889.

In 1894 a Gold and a Silver Medal were given by His Excellency The Earl of Aberdeen, Governor General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science.

8. SUBSCRIPTIONS TO GENERAL ENDOWMENT.

1856.

John Gordon McKenzie, Esq	$2000	Charles Alexander, Esq	$600
Ira Gould, Esq	2000	Moses E. David, Esq	600
John Frothingham, Esq	2000	Wm. Carter, Esq	600
John Torrance, Esq	2000	Thomas Patton, Esq	600
James B. Greenshields, Esq	1200	Wm. Workman, Esq	600
William Busby Lambe, Esq	1200	Hon. Sir A. T. Galt	600
Sir George Simpson, Knight	1000	Hon. Luther H. Holton	600
Henry Thomas, Esq	1000	Henry Lyman, Esq.	600
John Redpath, Esq	1000	David Torrance, Esq	600
James McDougall, Esq	1000	Edwin Atwater, Esq	600
James Torrance, Esq	1000	Theodore Hart, Esq	600
Hon. James Ferrier	1000	Wm. Forsyth Grant, Esq	600
Harrison Stephens, Esq	1000	Robert Campbell, Esq	600
Henry Chapman, Esq	600	Alfred Savage, Esq	600
Honorable Peter McGill	600	James Ferrier, jun., Esq	600
John James Day, Esq	600	William Stephen, Esq	600
Thomas Brown Anderson, Esq	600	N. S. Whitney, Esq	600
Peter Redpath, Esq	600	William Dow, Esq	600
Thomas M. Taylor, Esq	600	William Watson, Esq	600
Joseph McKay, Esq.	600	Edward Major, Esq	600
Donald Lorn McDougall, Esq.	600	Hon. Charles Dewey Day	200
Hon. Sir John Rose.	600	John R. Esdaile, Esq	200

1871.

William Molson, Esq	$5000	T. W. Ritchie, Esq	$600
Wm. C. McDonald, Esq	5000	Messrs. A. & W. Robertson	600
Thomas Workman, Esq	5000	Messrs. Sinclair, Jack & Co	250
John Frothingham, Esq.	5000	John Reddy, M.D	100
J. H. R. Molson, Esq	5000	Wm. Lunn, Esq	100
John McLennan, Esq	2000	Kenneth Campbell, Esq	100
B. Gibb, Esq	600	R. A. Ramsay, Esq	100
W. Notman, Esq.	600	Wm. Rose, Esq	50

1881–82.

Hugh McLennan, Esq	$5000	O. S. Wood, Esq	$1000
G. A. Drummond, Esq	4000	J. S. McLachlan, Esq	1000
Geo. Hague, Esq.	3000	J. B. Greenshields, Esq. (London)	1000
M. H. Gault, Esq	2000	Warden King, Esq	1000
Andrew Robertson, Esq	1000	W. B. Cumming, Esq	1000
Robertson Campbell, Esq.	1000	Mrs. Hew Ramsay	500
Sir Joseph and Lady Hickson	1000	R. A. Ramsay, Esq	500
Mrs. Andrew Dow	1000	H. H. Wood, Esq	500
Alexander Murray, Esq	1000	James Burnett, Esq	500
Miss Orkney	1000	Charles Gibb, Esq	500
Hector McKenzie, Esq	1000		

1883–84.

Edward Mackay, Esq $5000

9. SUBSCRIPTIONS FOR CURRENT EXPENSES, 1881–82.

Principal Dawson	$1000	Being	$1000
J. H. R. Molson, Esq	1000	Per annum. 5 years, being	5000
George Stephen, Esq	1000	" "	5000

Hon. Donald A. Smith	1000	Per annum, 5 years, being	5000
David Morrice, Esq	200	" "	1000
Messrs. Gault Brothers & Co	200	" "	1000
Messrs. S. H. & A. S. Ewing	200	" "	1000
Hon. Robert Mackay	300	Per annum, 2 years, being	600
Jonathan Hodgson, Esq	100	" 5 "	500
Geo. M. Kinghorn, Esq	100	" 5 "	500
Thomas Craig, Esq	100	" 2 "	200
John Rankin, Esq	200	Being	200
John Duncan, Esq	200	"	200
Robert Benny, Esq	100	"	100
Miss E. A. Ramsay	100	"	100
Hugh Paton, Esq	50	For 2 years, being	100
George Brush, Esq	25	For 5 years, being	125
J. M. Douglas, Esq	50	Being	50
James Court, Esq	50	"	50
David J. Greenshields, Esq	300	"	300

1887–88.

John H. R. Molson, Esq	$1000	Per annum, 3 years, being	$3000
W. C. McDonald, Esq	1000	" " "	3000
Peter Redpath, Esq	1000	" " "	3000
Hon. Sir D. A. Smith, K.C.M.G	1000	" " "	3000
Hon. James Ferrier	500	" " "	1500
Sir Joseph Hickson	500	" " "	1500
Hugh McLennan, Esq	250	" " "	750
E. B. Greenshields, Esq	250	" " "	750
George Hague, Esq	250	" " "	750
John Molson, Esq	250	" " "	750
Samuel Finley, Esq	250	" " "	750

Mrs. Mackay, $100.00 annually, 1889 to 1893 $500

10. TO PROVIDE SESSIONAL LECTURERS.

Hon. Sir Donald A. Smith,	1891–92	$3500
do	1892–93	4000
do	1893–94	4000
Mrs. John H. R. Molson,	1891–92	300
do	1892–93	1000
do	1893–94	1000

II ENDOWMENTS AND SUBSCRIPTIONS FOR THE FACULTY OF APPLIED SCIENCE.

1. BUILDINGS, CHAIRS, ETC.

The William Scott Chair of Civil Engineering, in 1884, endowed by the last will of the late Miss Barbara Scott, of Montreal,—$30,000.

The David J. Greenshields Chair of Chemistry and Mineralogy in the Faculties of Arts and Applied Science, in 1883, endowed by the last will of the late David J. Greenshields, Esq., of Montreal, with the sum of $40,000, half of which is devoted to Faculty of Applied Science.

The Thomas Workman Department of Mechanical Engineering—founded under the last will of the late Thomas Workman, Esq., and endowed with the sum of $117,000. The sum of $60,000 for the maintenance of a Chair of Me-

chanical Engineering, with the assistance, shops, machinery and apparatus necessary thereto, $57,000 to be expended in provision of necessary buildings machinery and apparatus. Any balance of this to be added to the invested endowment for the maintenance of the said Department.

William C. McDonald, Esq., toward erection of Thomas Workman Workshops, $20,000.

The William C. McDonald Engineering Building, and Equipment of same—announced by the donor as a gift to the University in 1890, and formally opened February, 1893.

The William C. McDonald Chair of Electrical Engineering, endowed by William C. McDonald, Esq., in 1891, with the sum of $40,000.

Macdonald Engineering Building Maintenance Fund, endowed by W. C. McDonald, Esq., in 1892, the income to be devoted to paying for Heating, Lighting, Insurance and Salary of Mechanician,—$45,000.

2. ENDOWMENT FOR PENSION FUND.

This endowment is given to be invested and kept as a Special Fund, the revenue arising from which to be used exclusively for providing Pensions or Retiring Allowances for members of the teaching staff of the Faculties of Arts and Applied Science.

Hon. Sir Donald A. Smith,	$50,000
John H. R. Molson, Esq.,	50,000
Wm. C. McDonald, Esq.,	50,000
Total	$150,000

3. EXHIBITIONS AND SCHOLARSHIPS.

The Scott Exhibition—founded by the Caledonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, and endowed in 1872 with the sum of $1,100, subscribed by members of the Society and other citizens of Montreal. The Exhibition is given annually in the Faculty of Applied Science—Annual value $60.

The Burland Scholarship—founded 1882, by J. H. Burland, B.A.Sc., $100 for a Scholarship in Applied Science, for three years, being $300.

Her Majesty's Commission for the Exhibition of 1851—Nomination Scholarships for 1891 and 1893, value £150 annually, each tenable for two years.

4. MEDALS AND PRIZES.

In 1885 the British Association Gold Medal, for competition in the Graduating class in the Faculty of Applied Science, was founded by subscription of members of the British Association for the Advancement of Science, and by gift of the Council of the Association, in commemoration of its meeting in Montreal in the year 1884.

(See also under Medals and Prizes in Section 1.)

5. ENDOWMENTS AND SUBSCRIPTIONS FOR MAINTENANCE OF FACULTY OF APPLIED SCIENCE.

Endowment Fund.

Daniel Torrance, Esq.	$5000	Graduates' Endowment Fund—	
George Moffatt, Esq.	1000	Class 1890—$70.00 a year for 5 years	$350
Charles J. Brydges, Esq.	1000		

Annual Subscriptions 1871–1879.

Hon. James Ferrier ($100 per annum, for 10 years)	$1000
Peter Redpath, Esq. ($400 per annum, for 10 years)	4000
John H. R. Molson, Esq. ($100 per annum, for 10 years)	4000
George H. Frothingham, Esq. ($400 per annum, for 7 years)	2800
T. Jas Claxton, Esq. ($100 per annum, for 6 years)	600
Donald Ross, Esq. ($50 per annum, for 5 years)	250
Miss Mary Frothingham ($400 per annum, for 3 years)	1200
H. McLennan, Esq. ($100 per annum, for 5 years)	$500
A. F. Gault, Esq. ($100 per annum, for 5 years)	500
Gilbert Scott, Esq. ($100 for 2 years)	200
Joseph Hickson, Esq. ($100 for 2 years)	200
Principal Dawson ($300 for 2 years)	600
His Excellency the Marquis of Lorne	500
Mrs. Redpath (Terrace Bank)	100

Towards Maintenance of Engineering Department.

W. C. McDonald, Esq	$10,000
do (for advertising)	675

To provide lectures in Mechanical and Sanitary Engineering.

E. B. Greenshields, Esq	$50	Jeffrey H. Burland, B.A.Sc., $100 for 2 years	$200
J. E. Bovey, Esq	50		
Professor H. T. Bovey	61	Smaller amounts	40

Chair of Practical Chemistry.

Hon. C. Dunkin, M.P.	$1200	P. Redpath, Esq	$226
Principal Dawson	1200		

For Maintenance of Chair of Mining Engineering and Metallurgy, 1891.

R. B. Angus, Esq.	$2000 00	
Mrs. Dow	1000 00	
Hugh McLennan, Esq	1000 00	
Miss Benny	1000 00	
T. A. Dawes, Esq	750 00	
A. A. Ayer, Esq.	250 00	
G. W. Reid, Esq.	100 00	
Evans Bros.	100 00	
		$6200 00
Payable in three years.		
Sir Wm. Dawson	1000 00	
Alex. Stewart, Esq. (London, Eng.)	1500 00	
R. C. Reid, Esq	1500 00	
James Ross, Esq.	600 00	
E. K. Greene, Esq.	750 00	
	$5350 00	$6200 00
	$5350 00	$6200 00
Dr. T. Brainerd	750 00	
A. F. Gault, Esq	750 00	
Messrs. H. & A. Allan	750 00	
Hector McKenzie, Esq	750 00	
Peter Lyall, Esq.	750 00	
A. Robertson, Esq.	300 00	
John Duncan, Esq.	300 00	
Geo. Hague, Esq.	300 00	
Jonathan Hodgson, Esq	300 00	
James Moore, Esq.	200 00	
Messrs. Ames & Holden	150 00	
Jas. Cooper, Esq.	150 00	
		10,800 00
		$17,000 00

Class Rooms for Faculty of Applied Science 1888.

John H. R. Molson, Esq..... $3000 | W. C. McDonald, Esq..... $3000

Surveying and Geodetic Apparatus.

W. C. McDonald, Esq..... 1500

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6. LIST OF SUBSCRIBERS AND DONORS TO THE EQUIPMENT OF THE NEW ENGINEERING BUILDINGS OF McGILL UNIVERSITY. TO MAY, 1894.

Mrs. J. McDougall..... $4000
R. Hersey, Esq..... 1200
R. Reford, Esq..... 1000
Messrs. Garth & Co..... 500
Messrs. Warden King & Son..... 534
Messrs. Jordan & Locker.....Equipment
W. Ogilvie, Esq..... $500
J. A. Pillow, Esq..... 250
James Shearer, Esq..... 200
G. W. Reed, Esq..... 100
Messrs. A. Ramsay & Son..... 100
F. Scholes, Esq..... 100
Messrs. W. McNally & Co..... 100
A. Ewan, Esq..... 100
Mrs. Redpath..... 100
E. Chanteloup, Esq..... 50
Charles Sheppard, Esq..... 200
G. Sadler, Esq. (Robin & Sadler.) Belting ($400)
R. Reid, Esq.....Equipment
P. Mitchell, Esq.....Equipment ($300)
Messrs. Twyford & Co.. .....Equipment
D. McLaren, Esq..... $100
J. Robertson, Esq .....Equipment
Kenneth Campbell, Esq..... $50
R. G. Reid, Esq... 1000
W. Drysdale, Esq..... .....Tools
A. Macpherson, Esq..... .....Tools
Swan Lamp Mf'g. Co..... .....Lamps
Messrs. E. & C. Gurney & Co.....$604
James Ross, Esq..... 500
H. R. Ives, Esq..... Cupola
G. R. Prowse, Esq.....Equipment
Jonathan Hodgson, Esq.....$200
Messrs. Hughes & Stephenson Equipment
W. H. Hutton, Esq.....
G. A. Grier, Esq.....Equipment
S. Carsley, Esq.....$100
H. Graham, Esq..... 100
E. W. Rathbun, Esq..... 112
Messrs. Brodie & Harvey..... 50
W. Abbott, Esq..... .....Equipment
Henry Birks, Esq .....Clock
Kennet Blackwell, Esq.....Equipment
A. Bremner, Esq..... $50
Campbell Tile Co., England, per Jordan & Locker..... .....Equipment
F. Chadwick, Esq .....Truss Models
Crosby Steam Valve Co., Boston. Indicator & Valves
John Date, Esq..... .....Equipment
D. Drysdale, Esq..... .....Tools
R. Forsyth, Esq.....Equipment
Messrs. Frothingham & Workman.Tools
W. E. Gower, Esq..... .....
Messrs. Hearn & Harrison, per L. Harrison, Esq.....Barometer & Clock
A. Holden, Esq ....Equipment
John Kennedy, Esq..... .....Equipment
J. Laurie & Bro.....Compound Engine
G. Brush, Esq ....Boiler
Messrs. Miller Bros. & Toms.....Elevator
Wm. Kennedy, Esq.Owen Sound, Pump
Messrs. R. & W. Kerr..... .....Tools
A. J Lawson, Esq.....Equipment
Messrs. D. & J. McCarthy, Sorel ...$300
Norton (The) Emery Wheel Co., Worcester, U.S..... .....Equipment
Wm. Notman, Esq.....Photographs
Radiator Co., Toronto.....$500
E. M. Renouf, Esq..... .....Books
Scovill Manufacturing Co... Equipment
P. W. St. George, Esq..... .....Models
Messrs. Tees & Co ....Equipment
Messrs. James Walker & Co.. .....Tools
George Bishop, Esq.. .....Equipment
The Edison General Electric Co .. Two 450 light dynamos
The Whittier Machine Co. (Boston). Electric Elevator
The Thomson-Houston Co. (Boston)..... .....Incandescent dynamos
The Royal Electric Co..... ..... 12 Arc Light dynamos
W. Rutherford, Esq.....Equipment
Messrs. J. Bertram & Sons (Dundas)..... .....24in. Planer
Messrs. R. W. Gardner & Son ..... 16in. Lathe

Dominion Wire Manfg. Co., per F. Fairman, Esq.....Shaper
The B. F. Sturtevant Co. (Boston). Blowers
The Geo. Blake Pump Co. (New York and Boston).....Pump
Ashton Valve Co. (Boston)..... Sectional Valve
Messrs. Siemens Bros. (London, Eng.).....Cable Samples
A. T. Taylor, Esq.....$300
H. T. Bovey, Esq.....Books
The National Electric Mf'g. Co..... Transformers
W. C McDonald, Esq..... Equipment
M. Parker, Esq.....Equipment
Messrs. Robb & Armstrong..... 80 H. P. High Speed Engine
Messrs. Pratt & Whitney (Hartford, Conn.), Epicycloidal Gear Model
Messrs. Schaefler & Budenberg (Brooklyn, N.Y.)...Double Indicator
J. Costigan, Esq.....Equipment
H. Archbald, Esq.....Books
Herr Brockhaus.....Books
John Seeley, Esq .....Insulators
Messrs. Nalder Bros. & Co. (Eng.). Standard Cell
Warrington Wire Co....Cable Samples
The Pelton Water Wheel Company (New York).....Two Motors
Yale & Towne Manufacturing Co. (Stamford, Conn)..... Equipment
The Crooker-Wheeler Electric Motor Co. (New York)...Motor
American Steam Gauge Company (Boston).....Indicator
Messrs. John Wiley & Sons (New York).....Books
Messrs. E. J. Maxwell & Co..Equipment
Dr. Mason..... "
Messrs. R. Mitchell & Co..... "
F. L. Wanklyn, Esq..... "
F. R. Redpath, Esq..... "
Messrs. Irwin & Hopper ..... "
Canadian General Electric Co. (Toronto), per F. Nichols, Esq..... "
R. Guilford Smith, Esq.. .....Books
Henry Garth, Esq.....Equipment
R. Gardner, Esq..... "
H. Paton, Esq ..... "
Messrs. John Lovell & Sons..... ..Books
Professor Egleston (New York)...Books
S. R. Earle, Esq..... .....Air Injector
Eureka Tempered Copper Co.Equipment
Alf. Joyce..... $50
Hon. J. K. Ward..... 50
Peter Nicholson..... $100
W. Rodden, Esq..... .....Equipment
R. Smith, Esq ..... "
A. Palmer, Esq..... "
Prof. C. A Carus-Wilson.... "
Electric Welding Company (Boston)..... "
Professor Rogers (Waterville, Maine)..... "
Messrs. Sharp, Stewart & Co. (Manchester, Eng.)..... "
Messrs. Hadfield (Sheffield) .. "
W. C. McDonald, Esq.. .....Experimental Pump
Canadian General Electric Co ... .. Electric Drill
Canadian General Electric Co ..... Edison Generator
National Electric Mfg. Co..... ..... 100-volt. Transformer
D. Egleston.. ..... Framed Photograph of the Moon
W. C. McDonald, Esq.. .....Piano
F. Reddaway & Co.....Belt (value $50.00)
P. H. Cowper, Esq.. .....Model of Steam Engine
C. F. Lindsay & Co.....Equipment
Canadian Pacific Railway Co..... Timber Beams of large Scantling for Testing Laboratory
McLaughlin Bros.....Timber Beams of large Scantling for Testing Laboratory
British Columbian Mills, Timber and Trading Company.....Timber Beams of large Scantling for Testing Laboratory
T. J. Claxton, Esq.....Timber Beams of large Scantling for Testing Laboratory
C. B. Smith, Esq..... Framed Photos of Bridges (2)
Pennsylvania Railroad Co...Working Drawings of Locomotives (32)
Rhode Island Locomotive Works... Photos of Locomotives
A. G. Lyster, Esq.....Drawings and Sketches of London and Liverpool Docks
The Geo. F. Blake Mnfg. Co ..... Blue Prints of Pump
Yates & Thom..... Blue Prints of Machinery
Felton & Guilleaume.. .....Samples of Cable Wire, etc.
The Steel Company of Scotland..... Samples of Cable Wire, etc.

The above representing a total value of about $80,000.

7. FACULTY OF APPLIED SCIENCE LIBRARY ENDOWMENT.

Hugh Paton	$ 25	W. Rodden	$25
A. Joyce	25	M. Parker	25
R. Gardner	50	Robin & Sadler	50
H. Garth	100	J. Robertson, Esq	50
Hughes & Stephenson	100		
R. Mitchell	300		$750

III. ENDOWMENTS AND SUBSCRIPTIONS IN AID OF THE FACULTY OF MEDICINE.

1. LEANCHOIL ENDOWMENT.

Hon. Sir Donald A. Smith, K.C.M.G $50,000

2. CAMPBELL MEMORIAL ENDOWMENT—$53,000.

Established to commemorate the service rendered to the Faculty during 40 years by the late Dean George W. Campbell, M.D , LL.D.

Mrs G. W. Campbell	$2000	E. K. & G. A. Greene, Esqrs	$500
H. A. Allan, Esq	1500	R. A. Smith, Esq	500
Hon. Sir D. A. Smith	1500	George Hague, Esq	500
Sir George Stephen, Bart	1000	J. K. Ward, Esq	500
R. B. Angus, Esq	1000	Warden King, Esq	500
George A. Drummond, Esq	1000	John Stirling, Esq	500
Alex. Murray, Esq	1000	John Rankin, Esq	500
Robert Moat, Esq	1000	Messrs. Cantlie, Ewan & Co.	500
W. C. McDonald, Esq	1000	Robert Reford, Esq	500
A friend	1000	Messrs. J. & W. Ogilvie	500
Duncan McIntyre, Esq	1000	Randolph Hersey, Esq	500
Alex. Buntin, Esq	1000	John A. Pillow, Esq	500
A. F. Gault, Esq	1000	S. Carsley, Esq	500
M. H. Gault, Esq	1000	D. C. MacCallum, M.D	500
G. W. Stephens, Esq	1000	Messrs. McLachlan Bros.	500
James Benning, Esq	1000	Messrs. S. Greenshields, Son & Co.	500
R. P. Howard, M.D	1000	Jonathan Hodgson, Esq	500
Frank Buller, M.D	1000	Duncan McEachran, Esq., F. R. C. V. S	500
G. B. & J. H. Burland, Esqs	1000	George Ross, M.D	500
Miss Elizabeth C. Benny	1000	T. G. Roddick, M.D	500
J. C. Wilson, Esq	1000	Wm. Gardner, M.D	500
Mrs. John Redpath	1000	G. P. Girdwood, M.D	500
Hon. John Hamilton	1000	G. E. Fenwick, M.D	500
Miss Orkney	1000	Alex. Ramsay, Esq	500
Hugh Mackay, Esq	1000	Messrs. Cochrane, Cassils & Co	500
Hector McKenzie, Esq	1000	Sir Joseph Hickson	500
Thomas Workman, Esq	1000	Allan Gilmour, Esq. Ottawa	500
Hugh McLennan, Esq	1000	R. W. Shepherd, Esq	500
O. S. Wood, Esq	1000	Miles Williams, Esq	300
James Burnett, Esq	500	Charles F. Smithers, Esq	250
Andrew Robertson, Esq	500	John Kerry, Esq	250
Robert McKay, Esq	500	A. Baumgarten, Esq	250
John Hope, Esq	500	R. W. Elmenhorst, Esq	250
Alex. Urquhart, Esq	500		

W. F. Lewis, Esq	250	T. J. Alloway, M.D	25
George Armstrong, Esq	250	Louis T. Marceau, M.D. (Napierville, Q.)	25
J. M. Douglas, Esq	250	Griffith Evans, M.D. (Vet. Dept. Army)	25
Messrs. H. Lyman, Sons & Co	250	J. J. Farley, M.D. (Belleville)	25
William Osler, M.D	250	Henry R. Gray, Esq	25
F. J. Shepherd, M.D	200	J. E. Brouse, M.D. (Prescott)	20
Benj. Dawson, Esq	150	R. F. Rinfret (Quebec)	$20
R. Wolff, Esq	150	Robt. Howard, M.D. (St Johns)	20
James Stuart, M.D	100	Drs. J. & D.J. McIntosh (Vankleek Hill)	20
A. T. Paterson, Esq	100	J. H. McBean, M.D	15
H. W. Thornton, M.D. New Richmond, Q.)	100	J. C. Rattray, M.D. (Cobden, O.)	10
M. E. David, Esq	100	E. H. Howard, M.D. (Lachine)	10
C. B Harvey, M.D. (Yale, B.C.)	100	J. W. Oliver, M.D. (Clifton, O.)	10
D. Cluness, M.D. (Nanaimo, B.C.)	100	D. A. McDougall, M.D. (Ottawa, O.)	10
W. Kinlock, Esq	100	A. Poussette, M.D. (Sarnia, O.)	10
Hua & Richardson	100	A. Ruttan, M.D. (Napanee, O.)	10
Mrs. Cuthbert (N. Richmond, Q.)	100	Jas. Gunn, M.D. (Durham, O.)	10
J. M. Drake, M.D	100	J. McDiarmid, M.D. (Hensall, O.)	$5
Hugh Paton, Esq	100	W.J. Derby, M.D. (Rockland, O)	5
R. T. Godfrey, M.D	100	J. Gillies, M.D. (Teeswater, O.)	5
T. A. Rodger, M.D	100	J. B. Benson, M.D. (Chatham, N.B.)	5
W. A. Dyer, Esq	100	L. A. Fortier, M.D. (St David, Q.)	
George Wood, M.D. (Faribault, Minn.)	100	J. A. Merthur, M.D. (Fort Elgin, O.)	5
A. A. Browne, M.D	100	John Campbell, M.D. (Seaforth, O.)	5
George Wilkins, M.D	100		
R. L. McDonnell, M.D	100		
Joseph Workman, M.D. (Toronto)	50		
Hon. Sir A. T. Galt	50		
Henry Lunam, B.A., M.D. (Campbellton, N.B.)	50		
R. J. B. Howard, M.D	25		

3. ENDOWED CHAIRS, ETC.

Sir Donald A. Smith Chair of Pathology in the Faculty of Medicine, endowed in 1893 by the Hon. Sir Donald A. Smith with the sum of..... $50,000

Sir Donald A. Smith Department of Hygiene in the Faculty of Medicine, endowed in 1893 by the Hon. Sir Donald A. Smith with the sum of... 50,000

Mrs. Mary Dow Bequest—Bequest by the will of the late Mrs. Mary Dow for the Faculty of Medicine, 1893, $10,000, less Government tax of 10 per cent..... $9,000

John H. R. Molson Donation—Donation by J. H. R. Molson, Esq., to the Faculty of Medecine of McGill University, $25,000 for the purchase of land, and $35,000 for additional building and equipment..... $60,000

Walter Drake, Esq., for benefit of Chair of Physiology, interest annually on $10,000, session 1891 to 1892-3..... $ 500

Mrs. John McDougall, toward formation of a Dr. Craik Fund..... $ 500

Jane F. Learmont, bequest do do do $3,000

4. MEDALS AND SCHOLARSHIPS.

In 1865 the "Holmes Gold Medal" was founded by the Faculty of Medicine as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine, to be given to the best student in the graduating class, in Medicine, who should undergo a special examination in all the branches whether Primary or Final.

In 1878 the "Sutherland Gold Medal" was founded by Mrs. Sutherland of Montreal, in memory of her late husband, Prof. William Sutherland, M.D., for competition in the classes of Theoretical and Practical Chemistry in the Faculty of Medicine, together with creditable standing in the Primary Examinations.

The David Morrice Scholarship—in the subject of Institutes of Medicine, in the Faculty of Medicine—founded in 1881—value $100. (Terminated in 1883.)

5. LIBRARY, MUSEUM AND APPARATUS.

For the fittings of the Library and Museum of the Faculty of Medicine, 1872.

G. W. Campbell, A.M., M.D.....	$1200	Robert Craik, M.D	$200
W. E. Scott, M.D	200	Geo. E. Fenwick, M.D.....	200
Wm. Wright, M.D.....	200	Joseph M. Drake, M.D.....	200
Robert P. Howard, M.D.....	200	George Ross, M.A., M.D	50
Duncan C. MacCallum, M.D...	200		

The Professors and Lecturers in the Summer Sessions of the Faculty of Medicine.....	Donation to Apparatus Museum, Library, etc., of the Medical Faculty, 1887, $1,182; 1888, $1,023.	2205

For Physiological Laboratory of Faculty of Medicine, 1879.

Dr. Campbell.....	$100	Dr. Ross	$50
Dr. Howard	100	Dr. Roddick.....	50
Dr. Craik.....	100	Dr. Buller.....	50
Dr. MacCallum.....	100	Dr. Gardner.....	50
Dr. Drake.....	100	Dr. Osler.....	50
Dr. Godfrey.....	100		
Dr. McEachran, F.R.C.V.S.....	100		$950

Cameron Obstetrical Collections.

Dr. J. C. Cameron..... $10,000

6. MISCELLANEOUS.

Anonymous Donor toward Expenses of Pathology for Session 1892-3..... $500

IV. ENDOWMENTS AND SUBSCRIPTIONS FOR THE FACULTY OF LAW.

1. ENDOWED CHAIRS, ETC.

The Gale Chair, in the Faculty of Law, endowed by the late Mrs. Andrew Stuart (*née* Agnes Logan Gale) of Montreal, in memory of her father, the late Honourable Mr. Justice Gale,—$25,000; part received, May, 1894.

The William C. McDonald Faculty of Law Endowment, founded by William C. McDonald, Esq. (1890)—$150,000.

2. MEDAL.

In 1865 the "Elizabeth Torrance Gold Medal" was founded and endowed by John Torrance, Esq., of St. Antoine Hall, Montreal, in memory of the late Mrs. John Torrance, for the best student in the graduating class in Law, and more especially for the highest proficiency in Roman Law.

V. LIBRARY, MUSEUM AND APPARATUS.

1. LIBRARY.

SPECIAL COLLECTIONS OF BOOKS PRESENTED TO THE LIBRARY.

1. The Peter Redpath Collection of Historical Books, presented by Peter Redpath, Esq., of Montreal, 2676 Volumes, with subsequent additions.
2. The Robson Collection of works in Archæology and General Literature, presented by Dr. John Robson, of Warrington, England, 3436 Volumes.
3. The Charles Alexander Collection of Classical Works, presented by C. Alexander, Esq., of Montreal, 221 Volumes.
4. Frederick Griffin, Esq., Q.C., Collection of Books, being the whole of his Library, bequeathed by his will, 2695 Volumes.
5. The Hon. Mr. Justice MacKay, Collection of Books, being the whole of his Library, 2007 Volumes.
6. The "T. D. King Shakespeare Collection," presented by the Hon. Sir Donald A. Smith and W. C. McDonald, Esq., of Montreal, being 214 Volumes.

2. SUBSCRIPTIONS, ETC., TO LIBRARY.

John Thorburn, for purchase of Books	$ 90	Hon. Sir Donald A. Smith, for purchase of books from the R. W. Boodle Library	$200
Andrew Drummond, do for Applied Science	25	Ottawa Valley Graduates Society, for binding books in the University Library	25
Hon. F.W. Torrance, for Endowment of Mental and Moral Philosophy Book Fund	1000	Hugh S. McLennan, Library Endowment, a gift from Estate late Hugh S. McLennan to the Library of McGill College, the income to be applied to binding	250
Mrs. Redpath, for the endowment of the Wm. Wood Redpath Library Fund	1000	Peter Redpath, Esq., in aid of the new catalogue of the Library (1892)	500
A Friend, by the Hon. F. W. Torrance	400	Miss Elizabeth Binmore, M. A., for the purchase of Botanical Books	10
The Graduates in Arts and Applied Science of 1885 for purchase of Books	31		
Do of 1886	28		
The late R. A. Ramsay, Esq., Bequest for purchase of books	1000		
Wm. Molson, Esq., for Endowment of a Library Fund	4000		
Andrew Drummond, Esq., to Library Fund of Faculty of Applied Science	25		

3. SPECIAL COLLECTIONS PRESENTED TO THE MUSEUM.

1. The Holmes Herbarium, presented by the late Andrew F. Holmes, M.D.
2. The Carpenter Collections of Shells, presented by the late P. P. Carpenter, Ph.D.
3. The Collection of Casts of Ivory Carvings issued by the Arundel Society, presented by Henry Chapman, Esq.
4. The McCulloch Collection of Birds and Mammals, collected by the late Dr. M. McCulloch, of Montreal, and presented by his heirs.
5. The Logan Memorial Collections of Specimens in Geology and Natural History, presented by the heirs of the late Sir W. E. Logan, LL.D., F.R.S.

6. The Dawson Collection in Geology and Palæontology, being the Private Collections of Principal Dawson, presented by him to the Museum.
7. The Bowles Collection of Lepidoptera, presented by W. C. McDonald, Esq., and J. H. Burland, Esq.
8. R. Morton Middleton, Jr., London, Eng. Collection of Plants.

(See also "List of Donations to the Library and Museum," printed annually in the Calendar and Report of the Museum.

4. SUBSCRIPTIONS, ETC., FOR THE MUSEUM.

T. J. Claxton, Esq., for purchase of Specimens for Museum.....	$ 250	A Lady, for Museum Expenses from 1882 to 1894	$7000
Wm. Molson, Esq., for Endowment of a Museum Fund.....	2000	A friend for the purchase of specimens for the Museum.....	1900
Peter Redpath, Esq., for Museum Expenses, $1000 per annum from 1882 to 1893.....	12,000	John H. R. Molson for purchase of book on "Butterflies of Eastern U.S. and Canada"..	50
Mrs. H. G. Frothingham, for the arrangement of Dr. Carpenter's Collection of Mazatlan shells.	233	Hon. Sir Donald A. Smith, for mounting skin and skeleton of Musk Ox	150
Peter Redpath, Esq., for improvements to Museum.....	1000		

5. FOR APPARATUS.

William Molson, Esq., Philosophical Apparatus, 1867	$ 500	Chas. Gibb, B.A., donation for Apparatus in Applied Science.	$50
John H. R. Molson, Esq., for the same	500	The Local Committee for the reception (1881) of American Society of Civil Engineers	
Peter Redpath, Esq., for the same.....	500	For the purchase of appliances for the department of Civil Engineering in Faculty of Applied Sce...	475
George Moffatt, Esq., for the same.....	250	Capt. Adams, Chemical Apparatus.....	10
Andrew Robertson, Esq., for the same	100	J. H. Burland, B.A. Sc., Chemical Apparatus	25
John Frothingham, Esq., for the same.....	100	Mrs. Redpath, Storage battery...	400
David Torrance, Esq., for the same.....	100	W. C. McDonald, Esq., fittings of upper Chemical Laboratory.....	2075
A Telescope and Astronomical Instruments, the gift of Chas. T. Blackman, Esq., of Montreal, and called after his name.		The Local Committee of the British Association for the Advancement of Science, to found the British Association Apparatus Fund in the Faculties of Arts and Applied Science, in commemoration of the meeting of the Association in Montreal in 1884	1500
Thos. J. Barron, B.A., for Philosophical Apparatus.....	50	A. J. Lawson, a Dynamo.	
J. H. R. Molson, Esq., Dynamo, Gas Engine and fixtures..	1792	Benjamin Dawson, 3 Microscopes.	
A Lady, for the purchase of Mining Models	1000		
Thos. McDougall, Esq., for the same.....	25		
J. Livesey, Esq., through Dr. Harrington, for the same.....	50		
Geo. Stephen, Esq., for the same.	50		

VI. SUBSCRIPTIONS FOR SPECIAL OBJECTS.

1. FOR A BUILDING FOR THE CARPENTER COLLECTION OF SHELLS, 1868.

Peter Redpath, Esq.	$ 500	Wm. Dow, Esq.	$100
William Molson, Esq	500	Thos. Rimmer, Esq.	100
Harrison Stephen, Esq.	100	Andrew Robertson, Esq.	100
Robert J. Reekie, Esq.	100	Mrs. Redpath	100
John H. R. Molson, Esq.	100	Benaiah Gibb, Esq.	50
Sir Wm. E. Logan, Esq., F.R.S.	100	Honorable John Rose	50
John Molson, Esq.	100		
Thos. Workman, Esq., M.P.	100		$2,200
Geo. H. Frothingham, Esq.	100		

2. FOR THE ERECTION OF THE LODGE AND GATES.

William Molson, Esq.	$100	John Frothingham, Esq.	$100
John H. R. Molson, Esq.	100	James A. Mathewson, Esq.	100
William Workman, Esq.	100	Peter Redpath, Esq.	100
Joseph Tillin, jun., Esq.	100	G. B. Frothingham, Esq.	100
Thos. J. Claxton, Esq.	100	G. D. Ferrier, Esq.	100
James Linton, Esq.	100	Geo. W. Warner, Esq.	100
William McDougall, Esq.	100	John Smith, Esq.	100
Charles J. Brydges, Esq.	100	Charles Alexander, Esq.	100
George A. Drummond, Esq.	100	J. Evans, Esq	100
Thomas Rimmer, Esq	100	Henry Lyman, Esq.	100
William Dow, Esq	100		

3. FOR THE SUPPORT OF THE CHAIR OF BOTANY, 1883-84.

Principal Dawson	$500	per annum, for 5 years, being			$2500
Hon. Sir D. A. Smith	250	"	"	"	1250
J. H. R. Molson	100	"	"	"	500
Mrs. J. H. R. Molson, Esq.	100	"	"	"	500
G. Hague, Esq.	100	"	"	"	500
Mrs. Redpath	100	"	"	"	500
Hugh McKay, Esq.	100	"	"	"	500
Robert Moat, Esq.	100	"	"	"	500
W. C. McDonald, Esq.	100	"	"	"	500
Charles Gibb, Esq	50	"	"	"	250
Miss Orkney	50	"	"	"	250
Robert McKay, Esq	50	"	"	"	250
Mrs. Molson	50	"	"	"	250
Mrs. John Molson	50	"	"	"	250
John Stirling, Esq.	50	"	"	"	250
Warden King, Esq.	50	"	"	"	250
Miss Hall	50	"	"	"	250
Robert Angus, Esq.	50	"	"	"	250
D. A. P. Watt, Esq	50	"	"	"	250
Hugh McLennan, Esq	25	"	"	"	125
Sir Joseph Hickson	10	"	"	"	50
Mrs. Phillips	10				10

4. SUBSCRIPTIONS TO BOTANIC GARDEN, 1890-91.

Hugh McLennan, Esq	$100	Jonathan Brown, Esq	$100
Gilman Cheney, Esq	100	Jonathan Hodgson, Esq	100
James Johnston, Esq	100	Robert Mackay, Esq	100
James Slessor, Esq	100	H. Shorey, Esq	50
A friend, Esq	100	J. S. Shearer, Esq	50
Hugh Graham, Esq	100	Geo. Sumner, Esq	25
A. F. Gault, Esq	100	A. Ramsay & Co	25
W. T. Costigan, Esq	100	Garth & Co	25

5. TO ERECT PLANT HOUSE IN BOTANIC GARDEN.

Hon. Sir Donald A. Smith	$362 00
John H. R. Molson, Esq	361 51
William C. McDonald, Esq	361 02
	$1084 53

6. IN AID OF THE CHAIR OF HEBREW.

Warden King, Esq	in 1889	$50	per annum,	3 years,	being		$150
Principal Sir William Dawson	"	50	"	"	"		150
Hon. Hugh Mackay	"	50	"	"	"		150
A. F. Gault, Esq	"	25	"	"	"		75
Geo. Hague, Esq	"	25	"	"	"		75
T. A. Dawes, Esq	"	25	"	"	"		75
S. Carsley, Esq	"	25	"	"	"		75
S. Davis, Esq.,	in 1892						20
Warden King, Esq	"	$50	per annum	for 3 years			150
A. F. Gault, Esq	"	50	"	"			150
Robert MacKay, Esq	"	50	"	"			150
Hugh McLennan, Esq	"	25	"	"			75
George Hague, Esq	"	25	"	"			75
T. A. Dawes, Esq	"	25	"	"			75
S. Carsley, Esq	"						25
J. Murphy, Esq	"						25

7. FOR MUSICAL INSTRUCTION IN THE DONALDA SPECIAL COURSE FOR WOMEN.

Hon. Sir Donald A. Smith, session 1889-90	200
" " " " 1890-91	200

8. FOUNDER'S TOMB.

R. A. Ramsay, M.A., B.C.L., to defray the expenses of re-erecting the tomb of the late Hon. James McGill $150

9. UNIVERSITY PORTRAITS AND BUSTS.

Portrait of the Founder, presented by the late Thomas Blackwood, Esq.

Portrait of William Molson, Esq., presented to the University.

Bust of William Molson, Esq., by Marshall Wood, presented by Graduates of the University.

Portrait of Peter Redpath, Esq., painted by Sydney Hodges, presented by Citizens of Montreal.

Portrait of Rev. Dr. Leach, by Wyatt Eaton, presented by Graduates of the University.

Portrait of Sir William Dawson, by Wyatt Eaton, presented by Friends and Graduates of the University.

Portrait of Hon. James Ferrier, by Robert Harris, presented by Friends and Graduates of the University.

Portrait of Dr. William Robertson, founder of the Medical Faculty, presented in loving remembrance by his family and descendants.

10. ENDOWMENT, HELD IN TRUST BY THE BOARD OF ROYAL NSTITUTION.

The "Hannah Willard Lyman Memorial Fund," contributed by subscription of former pupils of Miss Lyman, and invested as a permanent endowment to furnish annually a Scholarship or Prize in a "College for Women" affiliated to the University, or in classes for the Higher Education of Women approved by the University. The amount of the fund is at present $1,100.

VII. THE GRADUATES' FUNDS.

1. THE FUND FOR ENDOWMENT OF THE LIBRARY.

The Graduates' Society of the University, in 1876, passed the following Resolution:—

Resolved:—"That the members and graduates be invited to subscribe to a "fund for the endowment of the Libraries of the University; said fund to be in "vested and the proceeds applied under the supervision of the Council of the "Society in annual additions to the Libraries; an equitable division of said pro- "ceeds to be made by the Council between the University Library and those of "The Professional Faculties."

In terms thereof subscriptions have been paid in to the Graduates' Society, amounting in all to $3,090, the interest on which is annually expended in the purchase of books for the several libraries under the direction of a special committee appointed for that purpose.

2. THE DAWSON FELLOWSHIP FOUNDATION.

The Graduates' Society of the University, in 1880, and in commemoration of the completion by Dr. Dawson of his twenty-fifth year as Principal, resolved to raise, with the assistance of their friends, a fund towards the Endowment of the Fellowship, under the above name.

Details of the scheme can be had from the Treasurer, J. H. Burland, B.A.Sc. The following subscriptions have been announced to date, May 1st, 1889. They are payable in one sum, in instalments, without interest or with interest till payment of capital, as subscribers have elected.

Alphabetically arranged.

Abbott, H., B.C.L.....$	60
Archibald, H., B.A.Sc.....	20
Bethune, M. B., M.A., B.C.L....	50
Carter, C. B., B.C.L.....	100
Cruickshank, W. G., B.C.L.....	100
Dawson, W. B., M.A., Ma.E...	50
Dougall, J. R., M.A.....	250
Gibb, C., B.A.....	100
Hall, Rev. Wm., M.A.....	100
Hall, J. S., jun., B.A., B.C.L...	100
Harrington, B. J., B.A., Ph.D..	50
Hutchinson, M., B.C.L.....	400
Kirby, J., LL.D., D.C.L.....	50
Krans, Rev. E. H., M.A., LL.D.	100
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OF THE

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MONTREAL.

SESSION OF 1893-94.

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McGILL UNIVERSITY.

MONTREAL.

ENTRANCE, EXHIBITION AND SCHOLARSHIP EXAMINATIONS,

SEPTEMBER, 1893.

FACULTY OF ARTS.

FIRST YEAR ENTRANCE.

GREEK.

THURSDAY, SEPTEMBER 14TH :—MORNING, 9 TO 12.

Examiners, ... { A. JUDSON EATON, PH.D.
JOHN L. DAY, B.A.

[NOTE. Candidates will do (A), translate *one* of the passages of (B), and answer the questions printed at the end of that passage].

(A)

1. Decline ὁδός, σῶμα, ναῦς, Ζεύς, νύξ ; ἐγώ, εἷς, μέγας.

2. Inflect the Future Active (throughout) of λύω ; the Present Indicative Active of τιμάω (giving the contracted forms) ; the Present Optative Middle of ἵστημι.

3. Name the mood and tense of the following forms : εἶλον, ἔπαθεν, λέλυσαι, ἴασι, φῆνον, λίπωμαι. Give also their principal parts.

4. Translate, and state the principles of Syntax illustrated :—

(*a*) ταῦτα ἐγένετο. (*b*) τὸ πλῆθος ἐψηφίσαντο πολεμεῖν. (*c*) νόσον νοσεῖν. (*d*) καλὸς τὸ εἶδος. (*e*) πολλῷ κρεῖττόν ἐστιν.

5. Express in Greek : *this man ; the same man ; we see with our eyes ; we do not begin war.*

(B)

I. (*a*) Ἀπολελοίπασιν ἡμᾶς Ξενιάς καὶ Πασίων. ἀλλ' εὖγε μέντοι ἐπιστάσθωσαν ὅτι οὔτε ἀποδεδράκσιν. οἶδα

γάρ ὅπη οἴχονται. οὔτε ἀποπεφευγασιν. ἔχω γαρ τριήρεις, ὥστε ἑλεῖν τὸ ἐκείνων πλοῖον. ἀλλὰ μὰ τοὺς θεοὺς οὐκ ἔγωγε αὐτοὺς διώξω, οὐδ' ἐρεῖ οὐδείς, ὡς ἐγώ, ἕως μὲν ἄν παρῇ τις, χρῶμαι, ἐπειδὰν δὲ ἀπιέναι βούληται, συλλαβὼν καὶ αὐτοὺς κακῶς ποιῶ καὶ τὰ χρήματα ἀποσυλῶ. Ἀλλὰ ἴτωσαν εἰδότες, ὅτι κακίους εἰσὶ περὶ ἡμᾶς ἢ ἡμεῖς περὶ ἐκείνους.

(b) Καὶ ἤδη τε ἦν μέσον ἡμέρας καὶ οὔπω καταφανεῖς ἦσαν οἱ πολέμιοι. ἡνίκα δέ δεῖλη ἐγίνετο, ἐφάνη κονιορτὸς ὥσπερ νεφέλη λευκή, χρόνῳ δὲ συχνῷ ὕστερον ὥσπερ μελανία τις ἐν τῷ πεδίῳ ἐπὶ πολύ.

(c) Δῶρα δὲ πλεῖστα μὲν οἶμαι εἶς γε ὢν ἀνὴρ ἐλάμβανε διάπολλά. ταῦτα δὲ πάντων δὴ μάλιστα τοῖς φίλοις διεδίδου πρὸς τοὺς τρόπους ἑκάστου σκοπῶν καὶ ὅτου μάλιστα ὁρῴη ἕκαστον δεόμενον. καὶ ὅσα τῷ σώματι αὐτοῦ κόσμον πέμποι τις ἢ ὡς εἰς καλλωπισμόν, καὶ περὶ τουτων λέγειν αὐτὸν ἔφασαν, ὅτι τὸ μὲν ἑαυτοῦ σῶμα οὐκ ἂν δύναιτο τούτοις πᾶσι κοσμηθῆναι, φίλοις δὲ καλῶς κεκοσμημένους μέγιστον κόσμον ἀνδρὶ νομίζοι.—Anab. Bk. I.

Distinguish carefully between the meaning of three verbs, in the first passage for translation, viz., ἀπολελοίπασιν, ἀποδεδράκασιν, and ἀποπεφεύγασιν, and derive ὁμαλῶς, ἐξεκύμαινε, λευκοθωρακες, αὐτομολήσαντες and ψηφίσωνται.

II. Ἐπειδὴ δὲ ἐδείπνησαν καὶ νὺξ ἐγένετο, οἱ μὲν ταχθέντες ᾤχοντο, καὶ καταλαμβάνουσι τὸ ὄρος, οἱ δὲ ἄλλοι αὐτοῦ ἀνεπαύοντο. οἱ δὲ πολέμιοι ἐπεὶ ᾔσθοντο ἐχόμενον τὸ ὄρος, ἐγρηγόρεσαν καὶ εκαιον πυρὰ πολλὰ διὰ νυκτός. Ἐπειδὴ δὲ ἡμέρα ἐγένετο. Χειρίσοφος μὲν θυσάμενος ἦγε κατὰ τὴν ὁδόν, οἱ δὲ τὸ ὄρος καταλαβόντες κατὰ τὰ ἄκρα ἐπῆσαν. Τῶν δ' αὖ πολεμίων τὸ μὲν πολὺ ἔμενεν ἐπὶ τῇ ὑπερβολῇ τοῦ ὄρους, μέρος δ' αὐτῶν ἀπήντα τοῖς κατὰ τὰ

ἄκρα. πρὶν δὲ ὁμοῦ εἶναι τοὺς πολλοὺς ἀλλήλων συμμιγνέασιν οἱ κατὰ τὰ ἄκρα, καὶ νικῶσιν οἱ Ἕλληνες καὶ διώκουσιν. Ἐν τούτῳ δὲ καὶ οἱ ἐκ τοῦ πεδίου οἱ μὲν πελτασταὶ τῶν Ἑλλήνων δρόμῳ ἔθεον πρὸς τοὺς παρατεταγμένους, Χειρίσοφος δὲ βάδην ταχὺ ἐφείπετο σὺν τοῖς ὁπλίταις.—Anab. Bk. IV.

(*a*) Give the principal parts of ἐγένετο, ταχθέντες, ἤσθοντο. (*b*) Derive ὑπερβολῇ. (*c*) Define the term πελτασταί.

III. Ὣς εἰπὼν προΐει. κρατερὸν δ' ἐπὶ μῦθον ἐτελλεν.
Τὼ δ' ἀέκοντε βάτην παρ' θῖν' ἁλὸς ἀτρυγετοιο,
Μυρμιδόνων δ' ἐπί τε κλισίας καὶ νῆας ἱκέσθην.
Τὸν δ' εὗρον παρά τε κλισίῃ καὶ νηῒ μελαίνῃ
Ἥμενον· οὐδ' ἄρα τώ γε ἰδὼν γήθησεν Ἀχιλλεύς.
Τὼ μὲν ταρβήσαντε καὶ αἰδομένω βασιλῆα
Στήτην, οὐδέ τί μιν προσεφώνεον οὐδ' ἐρέοντο·
Αὐτὰρ ὁ ἔγνω ᾗσιν ἐνὶ φρεσὶ, φώνησέν τε·
"Χαίρετε, κήρυκες, Διὸς ἄγγελοι ἠδὲ καὶ ἀνδρῶν.
Ἄσσον ἴτ'. οὔ τί μοι ὔμμες ἐπαίτιοι, ἀλλ' Ἀγαμέμνων,
Ὅ σφῶι προΐει Βρισηΐδος εἵνεκα κούρης.
Ἀλλ' ἄγε, διογενὲς Πατρόκλεις, ἔξαγε κούρης.
Καί σφωϊν δὸς ἄγειν. τὼ δ' αὐτὼ μάρτυροι ἔστων
Πρός τε θεῶν μακάρων πρός τε θνητῶν ἀνθρώπων
Καὶ πρὸς τοῦ βασιλῆος ἀπηνέος, εἴ ποτε δ' αὖτε
Χρειὼ ἐμεῖο γένηται ἀεικέα λοιγὸν ἀμῦναι
Τοῖς ἄλλοις.—Iliad, Bk. I.

(*a*) What is the subject of the verb προΐει? the object? (*b*) Who were the heralds sent to Achilles? (*c*) What are the Attic forms of μίν, ἐμεῖο, ἔμμες, ᾗσιν? Scan the first two lines

IV. Ὡς δ' ὅτε τίς τ' ἐλέφαντα γυνὴ φοίνικι μιήνῃ
Μηονὶς ἠὲ Κάειρα παρήϊον ἔμμεναι ἵππων·

Κεῖται δ' ἐν θαλάμῳ, πολέες τέ μιν ἠρήσαντο
Ἵππῆες φορέειν· βασιλῆϊ δὲ κεῖται ἄγαλμα,
Ἀμφότερον, κόσμος θ' ἵππῳ ἐλατῆρί τε κῦδος·
Τοῖοί τοι, Μενέλαε, μιάνθην αἵματι μηροὶ
Εὐφυέες κνῆμαί τ' ἰδὲ σφυρὰ κάλ' ὑπένερθεν.

Οἱ δ' ὅτε δή ῥ' ἐς χῶρον ἕνα ξυνιόντες ἵκοντο,
Σύν ῥ' ἔδαλον ῥινούς σὺν δ' ἔγχεα καὶ μένε' ἀνδρῶν
Χαλκεοθωρήκων· ἀτὰρ ἀσπίδες ὀμφαλόεσσαι
Ἔπληντ' ἀλλήλῃσι, πολὺς δ' ὀρυμαγδὸς ὀρώρει.
Ἔνθα δ' ἅμ' οἰμωγή τε καὶ εὐχωλὴ πέλεν ἀνδρῶν
Ὀλλύντων τε καὶ ὀλλυμένων. ῥέε δ' αἵματι γαῖα.
Ὡς δ' ὅτε χείμαῤῥοι ποταμοὶ κατ' ὄρεσφι ῥέοντες
Ἐς μισγάγκειαν ξυμβάλλετον ὄδριμον ὕδωρ
Κρουνῶν ἐκ μεγάλων, κοίλης ἔντοσθε χαράδρας·
Τῶν δέ τε τηλόσε δοῦπον ἐν οὔρεσιν ἔκλυε ποιμήν·
Ὡς τῶν μισγομένων γένετο ἰαχή τε πόνος τε.

Iliad, Bk. IV.

(1) Scan the last four verses of ext. (*b*) noting any metrical peculiarities. (2) Give as carefully as you can the derivation and meaning of the following: *αἰολοθώρηξ, ὑπερκύδαντας, φύλοπιν, παραβλήδην.*

LATIN.

THURSDAY, SEPT. 14TH :—AFTERNOON, 2 TO 5.

Examiner,.....A. JUDSON EATON, PH. D.

(*A*) LATIN GRAMMAR.

1. Decline *rex, corpus; vir liber; unus quisquam; ipse.*

2. Write down the genitive plural of *deus, nox, canis, vis, domus;* the ablative singular of *animal, turris, Anchises;* the locative of *Roma, Philippi, rus, domus, Carthago.*

3. Compare the adjectives *felix, prudens, malevolus, idoneus*; the adverbs *misere, male, parum.*

4. (*a*) Inflect in the Present Subjunctive and Future Indicative of both voices: *laudo, tego, fero.* (*b*) Write down the Imperfect and Pluperfect Subjunctive (1st person only) of *orior, potior, sentio, veho.*

5. State the chief rules of Latin Quantity.

6. Illustrate any three of the uses of the genitive case.

7. Translate into Latin *any five* of the following sentences:

(*a*) You are favored. (*b*) He was most dear to the whole nation. (*c*) Fortune favors the brave. (*d*) In Caesar's language the Celtae were called Galli. (*e*) And hence he made a league of the noble and rich. (*f*) Then the Helvetii spoke to each other thus: "We will try whether, by joining boats and making rafts, we can force a passage."

(B) Caesar and Virgil.

[Candidates are requested to translate *two* of the following extracts, and answer the questions.]

I. Postero *die* castra ex eo loco movent: idem facit Caesar: equitatumque omnem, ad numerum quatuor milium, quem ex omni Provincia et Aeduis atque eorum sociis *coactum* habebat, praemittit, qui *videant*, quas in partes hostes iter *faciant*. Qui, cupidius novissimum agmen insecut alieno loco cum equitatu Helvetiorum proelium committunt; et pauci de nostris cadunt. Quo proelio sublati Helvetii, quod quingentis equitibus tantam multitudinem equitum propulerant, audacius subsistere, nonnunquam ex novissimo agmine proelio nostros lacessere, coeperunt.

Multa ab Caesare in eam sententiam dicta sunt, quare negotio desistere non posset, et "neque suam, neque Populi Romani consuetudinem pati uti optime meritos socios desereret; neque se iudicare Galliam potius esse *Ariovisti*, quam Populi Romani. Bello superatos esse Arvernos et Rutenos ab Q. Fabio Maximo, quibus Populus Romanus ignovisset, neque in provinciam redegisset, neque stipendium imposuisset. Quod si antiquissimum quodque tempus spectari oporteret, Populi Romani iustissimum esse in Gallia imperium: si iudicium senatus observari oporteret, liberam debere esse Galliam, quam bello victam suis legibus uti voluisset."—Caesar, B.G.I.

(*a*) State clearly the principles of syntax that determine the *italicized* forms.

II. Eodem fere tempore Caesar, etsi prope exacta iam aestas erat, tamen quod omni Gallia pacata Morini Menapiique supererant qui in armis essent

neque ad eum unquam legatos de pace misissent, arbitratus id bellum celeriter confici posse eo exercitum adduxit; qui longe alia ratione ac reliqui Galli bellum gerere coeperunt. Nam quod intelligebant maximas nationes quae proelio contendissent pulsas superatasque esse, continentesque silvas ac paludes habebant, eo se suaque omnia contulerunt. Ad quarum initium silvarum cum Caesar pervenisset castraque munire instituisset, neque hostis interim visus esset, dispersis in opere nostris subito ex omnibus partibus silvae evolaverunt et in nostros impetum fecerunt. Nostri celeriter arma ceperunt eosque in silvas repulerunt, et compluribus interfectis longius impeditioribus locis secuti paucos ex suis deperdiderunt.—Caesar, Bk. III.

(*a*) Account for the case of *Gallia*, *id bellum*, *ratione*; the mood of *erat*, *misisset*, *pervenisset*.

III. Eadem nocte accidit ut esset luna plena, qui dies maritimos aestus maximos in Oceano efficere consuevit, nostrisque id erat incognitum. Ita uno tempore et longas naves, quibus Caesar exercitum transportandum curaverat quasque in aridum subduxerat, aestus complebat, et onerarias quae ad ancoras erant deligatae tempestas afflictabat, neque ulla nostris facultas aut administrandi aut auxiliandi dabatur. Compluribus navibus fractis, reliquae cum essent funibus, ancoris reliquisque armamentis amissis ad navigandum inutiles, magna, id quod necesse erat accidere, totius exercitus perturbatio facta est. Neque enim naves erant aliae quibus reportari possent, et omnia deerant quae ad reficiendas naves erant usui; et quod omnibus constabat hiemari in Gallia oportere, frumentum his in locis in hiemem provisum non erat.—Caesar, Bk. IV.

(*a*) Give the principal parts of *accidit*, *consuevit*, *fractis*. (*b*) Fill in the ellipses after *aridum* and *onerarias*. (*c*) Explain the construction of *ad navigandum inutiles*, and *ad reficiendas naves*.

IV. Tum breviter Dido, vultum demissa, profatur:
"Solvite corde metum, Teucri, secludite curas.
Res dura et regni novitas me talia cogunt
moliri, et late finis custode tueri.
Quis genus Aeneadum, quis Troiae nesciat urbem,
virtutesque virosque, aut tanti incendia belli?
Non obtusa adeo gestamus pectora Poeni;
nec tam aversus equos Tyria Sol iungit ab urbe.
Seu vos Hesperiam magnam Saturniaque arva,
sive Erycis finis regemque optatis Acesten,
auxilio tutos dimittam, opibusque iuvabo.
voltis et his mecum pariter considere regnis;
urbem quam statuo, vestra est: subducite navis;

Tros Tyriusque mihi nullo discrimine agetur.
atque utinam rex ipse, Noto compulsus eodem,
adforet Aeneas!—VIRGIL, AEN. I.

(*a*) Explain the construction of—*voltum*, *corde*, *Aeneadum*, *mihi*. (*b*) Why was Italy called *Hesperia*? (*c*) Account for the epithet *Saturnia*.

V. Hinc *via*, Tartarei quae fert Acherontis ad undas :
turbidus hic coeno vastaque voragine gurges
aestuat, atque omnem *Cocyto* eructat arenam.
Portitor has horrendus aquas et flumina servat
terribili *squalore* Charon : cui plurima mento
canities inculta iacet : stant lumina flamma ;
Sordidus ex umeris nodo dependet amictus.
Ipse ratem conto subigit *velis*que ministrat,
et ferruginea subvectat corpora cymba
Iam senior ; sed cruda *deo* viridisque senectus.
huc omnis turba ad ripas effusa ruebat,
Matres atque viri, defunctaque corpora vita
magnanimum heroum, pueri innuptaeque puellae,
impositique rogis iuvenes ante ora parentum :
quam multa in silvis auctumni frigore primo
lapsa cadunt folia ; aut ad terram gurgite ab alto
quam multae glomerantur aves, ubi frigidus annus
Trans pontum fugat et terris inmittet apricis.—VIRGIL, AEN. VI.

(*a*) Explain the grammatical construction of italicized words. (*b*) Scan the first and third lines.

MATHEMATICS.

FRIDAY, SEPT. 15TH :—MORNING, 9 TO 12.

Examiner, ... ALEXANDER JOHNSON, LL. D.

1. On a given straight line construct a segment of a circle containing an angle equal to a given acute angle.

2. The straight line drawn perpendicular to a tangent to a circle from the point of contact passes through the centre.

3. Divide a straight line into two parts, so that the rectangle under the whole line and one part shall be equal to the square on the other.

4. If a straight line be divided into any two parts, the square on the whole line is equal to the sum of the rectangles contained by the whole line and each of the parts.

5. Describe a parallelogram that shall be equal to a given triangle, and have one of its angles equal to a given one.

6. The three angles of any triangle are equal to two right angles.

7. Solve the equations

(*a*) $x^2 - 14x = 120$;

(*b*) $\sqrt{5(x+2)} = \sqrt{5}x + 2$;

(*c*) $2x + 3y - 8 = 0$, $7x - y - 5 = 0$.

(*d*) $\frac{8x+5}{14} + \frac{7x-3}{6x+2} = \frac{4x+6}{7}$

(*e*) $(2+x)(a-3) = -4 - 2a$

8. Find by inspection the highest common factor (G.C.M.) of 6 ($x^2 - 1$) and 8 ($x^2 - 3x + 2$).

9. Reduce to a common denominator the fractions

$$\frac{x^2}{2ab}, \quad \frac{y^2}{3ac}, \quad \frac{z^2}{4bc}$$

10. Divide $6x^3 - 17x^2y + 16y^3$ by $3x - 4y$.

11. Add $1\frac{1}{3} + \frac{2}{3} - \frac{1}{6}$ and divide the sum by $\frac{3}{4}$ of $\frac{8}{9}$.

12. Reduce $\frac{151}{236}$ to a decimal.

13. Find the square root of 3.14159.

14. Find the interest on \$3456.53 for 4 months at $5\frac{1}{2}$ per cent.

15. State the length of a metre in feet and inches, and find the number of millimetres in 30 inches.

ENGLISH HISTORY AND ESSAY.

MONDAY, SEPT. 18TH :—MORNING, 10.30 TO 12.30.

Examiners, ... { CHAS. E. MOYSE, B.A
P. T. LAFLEUR, M.A.

FIRST YEAR.

1. Give some account of a rebellion in the reign of each of the following kings :—(*a*) Richard II : (*b*) Henry VI ; (*c*) James II.

2. Show the connection between the Tudor Line and James I, and trace the descent of Victoria from James I.

3. Make notes on the following matters of importance in the course of English history:—Monopolies; the officering of the militia; the billeting of soldiers on private subjects; indefinite imprisonment without trial; universal suffrage; the exclusion of foreigners from any civil or military office; the trial of ecclesiastical offenders in civil courts.

4. Notice the chief events in the intercourse between England and Scotland in the time of the Tudors.

5. State the *cause* of the Gunpowder Plot. Give an outline of the chief events of the reign in which that plot occurred.

6. State in whose reigns the following persons are conspicuous, and note the political policy of each: Thomas Cromwell, Robert Walpole, Earl Grey, Sir Thos. More, Sir Thos. Wyatt, Wellington, Pitt the elder.

Explain the following terms and titles:—the Covenant, Peter's Pence, Villeinage, Folkland, the Mise of Lewes.

SECOND YEAR.

(Answer questions 2 and 6 of the First Year set, and also the following.)

7. Give an outline of the Hundred Years' War between England and France, noting territorial gains and losses, and describing one of the principal battles.

8. Sketch the career of Shaftesbury and of Washington.

ESSAY.

(Write the Essay on a separate set of papers, and affix your name to it.)

FIRST YEAR.

Write an essay of not less than two pages on any *one* of the following subjects:—

A. Ambition.

B. Town Life, *or* Country Life.

C. Honesty is the best Policy

SECOND YEAR.

ENGLISH COMPOSITION AND ESSAY.

1. Explain and illustrate the following:—Tautology, Circumlocution, Simile, Metonymy, Periodic Sentence, Alliteration.

2. Make divisions and subdivisions, as headings for paragraphs, of any *one* of the following themes:—War, Governments, Inventions.

3. Draw general distinctions between the language of prose and that of poetry.

4. Write an essay of at least two pages on any *one* of the following subjects:—

A. The Future of Canada.

B. Exhibitions.

C. Time and Tide wait for no man.

(FACULTIES OF ARTS AND APPLIED SCIENCE.)

FIRST AND SECOND YEAR ENTRANCE.

ENGLISH GRAMMAR.

MONDAY, SEPT. 18th:—9 TO 10.30 A.M.

Examiners..... { CHAS. E. MOYSE, B.A. / W. J. MESSENGER, B.A.

FIRST YEAR.

1. Describe fully the different classes of Nouns, giving examples of each.

2. Illustrate the meaning of inflection by reference to the Personal Pronoun.

3. Show by examples how a verb may be modified by a word, by a phrase, and by a subordinate sentence.

4. Give the principal parts of the following verbs: kneel, read, sit, gird, rive, lade, bid, tear, flow, mow.

5. Analyse and parse:

> "Saint Augustine! thou hast well said
> That of our vices we can frame
> A ladder, if we will but tread
> Beneath our feet each deed of shame."

6. Mention all the uses of a noun in the nominative case, and give examples.

7. What is meant by mood, conjugation, voice, gerund, participle, defective verb, preposition, case?

SECOND YEAR.

(Candidates to answer the last four questions of the First Year and the following).

Analyse "Of comfort no *man speak*:
Let's talk of graves, of worms and epitaphs;
Make dust our *paper*, and with rainy eyes
Write sorrow in the bosom of the earth.
Let's choose executors and talk of wills;
And *yet* not so—*for what can* we bequeath
Save our deposed bodies to the ground?"

9. (*a*) Write on the uses of the word "but" in old and modern English.
(*b*) Make notes on the etymological and grammatical peculiarities of the following words: children, gander, songstress, riches, news, rather.

10. Parse italicized words in question 8.

DICTATION.

Wait a little longer and you shall see those scattered mists rallying in the ravines, and floating up toward you, along the winding valleys, till they couch in quiet masses, iridescent with the morning light upon the broad breasts of the higher hills, whose leaves of massive undulation will melt back and back into that robe of material light, until they fade away, lost in its lustre, to appear again above, in the serene heaven, like a wild, bright, impossible dream, foundationless and inaccessible, the very bases vanishing in the unsubstantial and mocking blue of the deep lake below. Wait yet a little longer, and you shall see those mists gather themselves into white towers, and stand like fortresses along the promontories, massy and motionless, only piled every instant higher and higher into the sky, and casting longer shadows athwart the rocks, and out of the pale blue of the horizon you will see forming and advancing a troop of narrow, dark, pointed vapors, which will cover the sky, inch by inch, with their gray net work, and take the light off the landscape with an eclipse which will stop the singing of the birds and the motion of the leaves, together; and then you will see horizontal bars of black shadow forming under them, and lurid wreaths create themselves, you know not how, along the shoulders of the hills; you never see them form, but when you look back to a place which was clear an instant ago, there is a cloud on it, hanging by the precipices, as a hawk pauses over his prey.

SUPPLEMENTAL EXAMINATION.

ENGLISH LITERATURE.

MONDAY, SEPT. 18TH :—MORNING, 9 TO 12.

I. Sketch briefly the progress of Christianity in Britain, till the Synod of Whitby.

II. Describe the great A. S. Epic Beowulf.

III. Mention three of Cynewulf's works, and describe any one of them.

IV. Make notes on Odericus Vitalis, Hilarius, Wm. of Newbury, Robert of Gloucester.

V Name the authors of the following works :—Philobiblon, Rosa Anglica, Vox clamantis, De dominio divino, King's Quhair, Satire of the Three Estates, Gorboduc, Pandosto, The Araygnment of Paris, Temple of Glass.

VI. Indicate Chaucer's place in English literature.

VII. Give a short account of Petrarch, and mention his chief works.

VIII. Give an outline of Marlowe's Faustus.

(FIRST YEAR ARTS AND SCIENCE.)

SUPPLEMENTAL EXAMINATION.

MILTON AND COMUS.

MONDAY, SEPT. 18TH :—MORNING, 9 TO 12.

I. Describe Milton's Italian tour.

II. (*a*) Make notes on Eikonoklastes, Ad patrem, Sportive Wit, Eikon Basilike, Defensio Regia. (*b*) Morus, Ellwood, Thos. Young, Ed. King, Hartlib.

III. Describe the part taken by the Attendant Spirit.

IV. Describe the first meeting of Comus and the lady, and the conversation that ensues.

V. Explain the appearance of Sabrina, and her significance ?

VI. Explain the following expressions, and refer them to their respective speakers :

"Hail foreign wonder,"
"May sit i'th' centre."
"I do not think my sister so to seek
Or so unprincipled in virtue's book."
"Thou shalt be our star of Arcady.
Or Tyrian Cynosure."
"Mysterious dame
That ne'er art called."

FIRST YEAR HIGHER ENTRANCE AND EXHIBITIONS.

THURSDAY, SEPT. 14TH:—MORNING, 9 TO 12.

TRANSLATION FROM GREEK AUTHORS.

Examiners,..... .... { A. J. EATON, PH.D. / JOHN L. DAY, B.A.

[Candidates are requested to translate from the paper for First Year Entrance, one extract from Homer, and one from Xenophon; and the following passages].

I. πεντήκοντα δέ οἱ δμωαὶ κατὰ δῶμα γυναῖκες
αἱ μὲν ἀλετρεύουσι μύλης ἔπι μήλοπα καρπὸν,
αἱ δ' ἱστοὺς ὑφόωσι καὶ ἡλάκατα στρωφῶσιν,
ἧμεναι, οἷά τε φύλλα μακεδνῆς αἰγείροιο
καιροσέων δ' ὀθονέων ἀπαλείβεται ὑγρὸν ἔλαιον.
ὅσσον Φαίηκες περὶ πάντων ἴδριες ἀνδρῶν
νῆα θοὴν ἐνὶ πόντῳ ἐλαυνέμεν, ὣς δὲ γυναῖκες
ἱστὸν τεχνῆσσαι. πέρι γάρ σφισι δῶκεν Ἀθήνη
ἔργα τ' ἐπίστασθαι περικαλλέα καὶ φρένας ἐσθλάς.
ἔκτοσθεν δ' αὐλῆς μέγας ὄρχατος ἄγχι θυράων
τετράγυος· περὶ δ' ἕρκος ἐλήλαται ἀμφοτέρωθεν,
ἔνθα δὲ δένδρεα μακρὰ πεφύκει τηλθόωντα
ὄγχναι καὶ ῥοιαὶ καὶ μηλέαι ἀγλαόκαρποι
συκέαι τε γλυκεραὶ καὶ ἐλαῖαι τηλεθόωσαι.

HOMER, ODYSSEY, VII.

(*a*) Write out any non-Attic forms in the above extract, and give their Attic equivalents. (*b*) Distinguish τεχνῆσαι and τεχνῆσσαι. Some editors adopt ἱστῶν for ἱστόν: which reading is to be preferred, if τεχνῆσσαι be retained. (*c*) Mark the scansion of the first two lines.

II. (*a*) Δοκεῖτε δέ μοι πολὺ βέλτιον ἂν περὶ τοῦ πολέμου καὶ ὅλης τῆς παρασκευῆς βουλεύσασθαι, εἰ τὸν τόπον, ὦ ἄνδρες Ἀθηναῖοι, τῆς χώρας, πρὸς ἣν πολεμεῖτε, ἐνθυμηθείητε, καὶ λογίσαισθε ὅτι τοῖς πνεύμασι καὶ ταῖς ὥραις τοῦ ἔτους τὰ πολλὰ προλαμβάνων διαπράττεται Φιλιππος καὶ φυλάξας τοὺς ἐτησίας ἢ τὸν χειμῶνα, ἐπιχειρεῖ, ἡνίκ' ἂν ἡμεῖς μὴ δυναίμεθα ἐκεῖσε ἀφις κεσθαι. δεῖ τοίνυν ταῦτ' ἐνθυμουμένους μὴ βοηθείαις πολεμεῖν, ὑστεριούμεγὰρ ἁπάντων, ἀλλὰ παρασκευῇ συνεχεῖ καὶ ἐντόμει. ὑπάρχει δ' ὑμῖν χειμάσια μὲν χρῆσθαι τῇ δυνάμει Λήμνῳ καὶ Θασῳ καὶ Σκιάθῳ καὶ ταῖς ἐν τούτῳ τῷ τόπῳ νήσοις, ἐν αἷς καὶ λιμένες καὶ σῖτος καὶ ἃ χρὴ στρατεύματι πάνθ' ὑπάρχει· τὴν δ' ὥραν τοῦ ἔτους, ὅτε καὶ πρὸς τῇ γῇ γενέσθαι ῥᾴδιον καὶ τὸ τῶν πνευμάτων ἀσφαλὲς, πρὸς αὐτῇ τῇ χώρᾳ καὶ πρὸς τοῖς τῶν ἐμπορίων στόμασι ῥᾳδίως εἴσεσθε.—Demosthenes, Phil. I., §§ 31–32.

(*b*) Ταῦτ' ἀκούσαντες ἐκεινοι, καὶ θορυβοῦντες ὡς ορθῶς λέγεται, καὶ πολλοὺς ἑτέρους λόγους παρὰ τῶν πρέσβεων καὶ παρόντος ἐμοῦ καὶ πάλιν ὕστερον, ὡἔοικεν, οὐδὲν μᾶλλον ἀποσχήσονται τῆς Φιλίππου φιλίας οὐδ' ὧν ἐπαγγέλλεται. καὶ οὐ τοῦτ' ἔστιν ἄτοπν, εἰ Μεσσήνιοι καὶ Πελοποννησιων τινες παρ' ὰ τῷ λογισμῷ βέλτισθ' ὁρῶσί τι πράξουσιν. ἀλλ' εἰ ὑμεῖς οἱ καὶ συνιέντες αὐτοὶ καὶ τῶν λεγόντων ἀκουοντες ἡμῶν ὡς ἐπιβουλεύεσθε, ὡς περιστοιχίζεσθε, ἐκ τοῦ μηδὲν ἤδη ποιεῖν λήσεθ', ὡς ἐμοὶ δοκεῖ, πάνθ' ὑπομείναντες· οὕτως ἡ παραυτίχ' ἡδονὴ καὶ ῥᾳστώνη

μείζαν ἰσχύει τοῦ ποθ' ὕστερον συνοίσειν μελλοντος.—DEMOSTHENES, Phil. II., §§ 26–27.

(1) Describe the Geographical position of Amphipolis, Olynthus, Potidaea, Methone. What was the cause of the war between Philip and the Athenians?

III. *(At Sight.)*

Βάτραχοι, λυπούμενοι περὶ τῆς ἑαυτῶν ἀναρχίας, πρέσβεις ἔπεμψαν πρὸς τὸν Δία, βασιλέα αὐτοῖς παρασχεῖν· ὁ δὲ, συνιδὼν αὐτῶν τὴν εὐήθειαν, ξύλον εἰς τὴν λιμνην καθῆκεν. Καὶ οἱ βάτραχοι, τὸ μὲν πρῶτον καταπλαγέντες τὸν ψόφον, εἰς τὰ βάθη τῆς λίμνης ἔδυσαν· ὕστερον δὲ, ὡς ἀκίνητον ἦν τὸ ξύλον, ἀναδύντες, εἰς τοσοῦτον καταφρονήσεως ἦλθον, ὡς καὶ ἐπιβαίνοντες αὐτῷ ἐπικαθέζεσθαι· ἀναξιοπαθοῦντες δὲ τοιούτον ἔχειν βασιλέα, ἦκον ἐκ δευτέρου πρὸς τὸν Δία, καὶ τοῦτον παρεκάλουν ἀλλάξαι αὐτοῖς τὸν ἀρχηγόν· τὸν γὰρ πρῶτον λίαν εἶναι νωχελῆ καὶ ἀδόκιμον. ὁ δὲ Ζεὺς, ἀγανακτήσας κατ' αὐτῶν, ὕδρον αὐτοῖς ἔπεμψεν, ὑφ' οὗ συλλαμβανόμενοι κατησθίοντο.

[1] *βάτραχοι*: frogs. *εὐήθειαν*: stupidity. *καταπλαγέντες* frightened at. *ἀκίνητον*: motionless. *καταφρονήσεως*: disrespect. *ἀναξιοπαθοῦντες*: indignant at unworthy treatment.

IV. *(At Sight.)*

Ἀντίοχος, ὁ στρατεύσας δεύτερον ἐπὶ Πάρθους, ἔν τινι κυνηγεσίῳ[1] καὶ διωγμῷ τῶν φίλων καὶ θεραπόντων ἀποπλανηθεὶς. εἰς ἔπαυλιν[2] πενήτων ἀνθρώπων ἀγνοούμενος εἰσῆλθε· καὶ, παρὰ τὸ δεῖπνον, ἐμβαλὼν λόγον περὶ τοῦ βασιλέως, ἤκουσεν ὅτι τἄλλα χρηστός ἐστιν, φίλοις δὲ

[1] *κυνηγεσίῳ*: hunting expedition. [2] *ἔπαυλιν*: homestead.

ποχθηρὸς ἐπιτρέπων τὰ πλείστα παρορᾷ,[1] καὶ πολλάκις ἀμελεῖ τῶν ἀναγκαίων διὰ τὸ λίαν φιλόθηρος εἶναι. τότε μὲν οὖν ἐσιώπησεν· ἅμα δὲ ἡμέρᾳ τῶν δορυφόρων[2] παραγενομένων ἐπὶ τὴν ἔπαυλιν, φανερὸς γενόμενος, προσφερομένης τῆς πορφύρας αὐτῷ καὶ τοῦ διαδήματος, Ἄλλα. ἀφ' ἧς. εἶπεν. ἡμέρας ὑμᾶς ἀνειληφα. πρῶτον ἐχθὲς ἀληθινῶν λόγων ἤκουσα περὶ ἐμαυτοῦ.

FIRST YEAR EXHIBITIONS.

TRANSLATION FROM LATIN AUTHORS.

THURSDAY, SEPT. 14th:—AFTERNOON, 2 to 5.

Examiner..... A. J. EATON, M.A., Ph.D.

NOTE.—Candidates will do (B) IV, and I or III. from the paper for first year Entrance and translate the following extracts.

(*a*) Quid ? Cum te Praeneste Kalendis ipsis Novembribus occupaturum nocturno impetu esse confideres, sensistine illam coloniam meo iussu praesidiis custodiis vigiliis esse munitam? Nihil agis, nihil moliris, nihil cogitas, quod non ego non modo audiam, sed etiam videam planeque sentiam.

Recognosce tandem mecum noctem illam superiorem; iam intelleges multo me vigilare acrius ad salutem quam te ad perniciem rei publicae. Dico te priore nocte venisse inter falcarios—non agam obscure—in M. Laecae domum; convenisse eodem compluris eiusdem amentiae sceleris-que socios. Num negare audes ? quid taces ? convincam, si negas. Video enim esse hic in senatu quosdam, qui tecum una fuerunt.

I (*b*) Quod exspectavi, iam sum adsecutus, ut vos omnes factam esse aperte coniurationem contra rem publicam videretis; nisi vero si quis est qui Catilinae similis cum Catilina sentire non putet. Non est iam lenitati locus: severitatem res ipsa flagitat. Unum etiam nunc concedam: exeant, proficiscantur; ne patiantur desiderio sui Catilinam miserum tabescere. Demonstrabo iter; Aurelia *via* profectus est: si ad celerare volent, ad vesperam consequentur.—Cicero In Catilinam, I. and II.

II. (*At sight*).

His rebus permotus Q. Titurius, cum procul Ambiorigem suos cohortantem conspexisset, interpretem suum Cn. Pompeium ad eum mittit rogatum ut

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[1] *παρορᾷ*: neglect. [2] *δορυφόρων*: body-guard.

sibi militibusque parcat. Ille appellatus respondit: Si velit secum colloqui, licere; sperare a multitudine impetrari posse quod ad militum salutem pertineat; ipsi vero nihil nocitum iri, inque eam rem se suam fidem interponere. Ille cum Cotta saucio communicat, si videatur, pugna ut excedant et cum Ambiorige una colloquantur; sperare ab eo de sua ac militum salute impetrare posse. Cotta se ad armatum hostem iturum negat atque in eo constitit.

Sabinus quos in praesentia tribunos militum circum re habebat et primorum ordinum centuriones se sequi iubet, et cum propius Ambiorigem accessisset, iussus arma abicere imperatum facit suisque ut idem faciant imperat. Interim dum de conditionibus inter se agunt longiorque consulto ab Ambiorige instituitur sermo, paulatim circumventus interficitur. Tum vero suo more victoriam conclamant atque ululatum tollunt, impetuque in nostros facto ordines perturbant. Ibi L. Cotta pugnans interficitur cum maxima parte militum; reliqui se in castra recipiunt unde erant egressi: ex quibus L. Petrosidius aquilifer, cum magna multitudine hostium premeretur, aquilam intra vallum proiecit, ipse pro castris fortissime pugnans occiditur. Illi aegre ad noctem oppugnationem sustinent: noctu ad unum omnes desperata salute se ipsi interficiunt. Pauci ex proelio elapsi incertis itineribus per silvas ad T. Labienum legatum in hiberna perveniunt atque eum de rebus gestis certiorem faciunt.

III. (*At sight*).

Description of a Terrific Storm.

Me miserum, quanti montes volvuntur aquarum!
Iam iam tacturos sidera summa putes.
Quantae diducto subsidunt aequore valles!
Iam iam tacturas Tartara nigra putes.
Quocumque aspicio, nihil est, nisi pontus et aër,
Fluctibus hic tumidus, nubibus ille minax.
Inter utrumque fremunt immani murmure venti;
Nescit, cui domino pareat, unda maris.
Nam modo purpureo vires capit Eurus ab ortu,
Nunc Zephyrus sero vespere missus adest.
Nunc sicca gelidus Boreas bacchatur ab arcto,
Nunc Notus adversa proelia fronte gerit.
Rector in incerto est nec quid fugiatve petatve
Invenit; ambiguis ars stupet ipsa malis.
Hei mihi quam celeri micuerunt nubila flamma!
Quantus ab aetherio personat axe fragor!
Nec levius tabulae laterum feriuntur ab undis,
Quam grave ballistae moenia pulsat onus.
Nec letum timeo: genus est miserabile leti.

Demite naufragium, mors mihi munus erit.
Est aliquid, fatoque suo ferroque cadentem
In solida moriens ponere corpus humo,
Et mandare suis aliqua, et sperare sepulcrum,
Et non aequoreis piscibus esse cibum.
Fingite me dignum tali nece; non ego solus
Hic vehor: immeritos cur mea poena trahit?

FIRST YEAR EXHIBITIONS.

GENERAL PAPER.

TUESDAY, SEPT. 19th:—AFTERNOON, 2 TO 5.

Examiner,..... .....A. J. EATON, M.A., PH.D.

1. Write down the gen. sing. of *deus, Vergilius, vis, vir*; the abl. sing. of *animal, urbs*: the locative of *Roma, Philippi, Tralles, rus, Carthago*; the voc. sing. of *meus filius*.

2. (*a*) Give the dat. and accus. sing., and dat. pl. of λέων, ἐλπίς, τιθείς, χαρίεις, γυνή, χείρ, θυγάτηρ, φρήν. (*b*) Give the Homeric declension of ναῦς.

3. Compare *prudens, malevolus, idoneus*: ὄλιγος, καλῶς, σώφρων, ἡδύς.

4. (*a*) Write down the principal parts of *scindo, fido, caedo, cudo*. (*b*) Form compounds with *caedo, cudo* and *ob*, and distinguish in form and meaning.

5. (*a*) Mention some verbs beginning with ε that take ει for their augment instead of η. Account for the apparent irregularity. (*b*) Give the third person plural of all tenses of *prosum, fio*. (*c*) Write down the second persons of the imperfect of εἶμι, the aorist indicative and imperative active of τίθημι, and the present optative of ὁράω.

6. Give the rules, with examples, for the use of *cum* (conj.) and *dum*.

7. When is a syllable said to be *long by position*? Is the *vowel* of such a syllable long or short? Mark the quantity of each vowel, and show what metrical foot each word represents: *regis* (thou rulest); *regis* (of a king); *patris, late, pelago, manu*.

8. With what cases are διά, μετά, περί joined, and with what meanings?

9. Translate into Greek :—(1) The father rejoiced in his sons being wise. (2) I wonder at the men of the present day. (3) He took pleasure in doing kind offices to the good. (4) It is necessary to bear what comes from the gods. (5) He said that, unless the citizens performed him his service, he would lay waste the rest of the country.

10. Translate into Latin either (A) or (B) :—(A) 1. That part which the Belgae occupied began at the remotest confines of Gaul. 2. It has been said that the Helvetii surpassed all the rest of the Gauls in prowess. 3. The state did not enforce its authority, because Orgetorix died. 4. If you desire anything, you may return on the 13th of April. 5. In about fifteen days he came to the territories of the Belgae. 6. They informed him that the Germans were in arms, and that even their own brothers and kinsmen could not be kept by them from uniting with the Belgae. "So great," said they, "is the blind passion of all the Belgae, that even the Suessiones cannot be kept from marching against them.

(B) 1. Both you and I have waged many wars for our country. 2. Does it seem that death is an eternal sleep, or the beginning of another life? 3. I sent you the best and bravest foot soldiers that I had with me; and having promised to send them back, you reluctantly kept your word. 4. I am afraid he will come. 5. You are obeyed by no one, yet your father was the ruler of a mighty nation. 6. I do not doubt but that the soldiers fought bravely. Both your father and you were at that time in exile; my father and I were at home exposed to the fury and cruelty of our deadliest enemies. Now you and I are secure and free from care, and no one will any longer inflict on us injury and wrong.

11*. There is nothing that Catiline can now look forward to, for he does nothing but what is brought to light by the vigilance of Cicero. Will he therefore change his mind? Will he take the consul's advice and forget his infamous plans of murder? Let him recall to mind those words which Cicero uttered in the senate, and he will see that all was foretold by him. After Manlius, his tool and agent, had gone into Etruria he remained in Rome, trusting that he should seize Praeneste by an assault in the night; but Cicero, for the purpose of thwarting his plans, had strengthened that town with guards. He cannot plot anything that does not come to Cicero's ears.

* *Extra question.*

FIRST YEAR EXHIBITIONS.

ALGEBRA AND ARITHMETIC.

FRIDAY, SEPT. 15TH:—AFTERNOON, 2 TO 5.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. The fifth term of a series in geometrical progression is 8 times the second, and the third term is 12;—find the series.

2. The sum of an infinite geometrical series is 2, and the second term is $-\frac{1}{2}$. Find the series.

3. Find the arithmetical, geometric and harmonic means between $3\frac{3}{8}$ and $1\frac{1}{2}$.

4. Investigate a formula for finding the sum of a series in arithmetical progression.

5. Solve the equations:—

(*a*) $\sqrt{b\,x + x^2} = 1 + x$

(*b*) $\frac{4\,x + 7}{19} + \frac{5 - x}{3 + x} = \frac{4\,x}{9}$

(*c*) $5\,x + 4\,y = 58;\ 3\,x + 7\,y = 67:$

(*d*) $\frac{x}{a + x} = \frac{a + x}{x} - \frac{2\,a - b}{2\,x}$

6. The sum of two numbers multiplied by the greater is 144, and the difference multiplied by the less is 14; find them.

7. Explain why it is that $a^0 = 1$, $a^{-n} = \frac{1}{a^n}$.

8. Find the highest common factor (or G. C. M.) of $6\,x^2 + 13\,x + 6$ and $8\,x^2 + 6\,x - 9$.

9. Extract the square root of 2 to five places of decimals.

10. Find the interest on $5764 for five months at 6 per cent.

11. Find how much per cent. 3765 is of 86342.

12. If the weight of a cubic inch of water be 252.5 grains and 10 inches of snow be equal to one inch of rain, find in tons the weight of snow on the ground when 1500 square miles are covered to the depth of two feet.

FIRST YEAR EXHIBITIONS.

GEOMETRY.

FRIDAY, SEPTEMBER 15TH:—MORNING, 9 TO 12.

Examiner,..... ....ALEXANDER JOHNSON, LL.D.

1. Describe a circle which shall pass through two given points and have a radius equal to a given straight line. When will this be impossible?

2. If through a point *within* a circle two lines be drawn cutting the circle, prove that the rectangle under the segments of the one is equal to the rectangle under the segments of the other.

(*a*) Prove that this is true also if the point be without the circle, defining *segments* properly.

3. In equal circles, angles whether at the centres or the circumferences which stand on equal arcs are equal.

4. Through a given point within a circle draw the shortest chord.

5. If a straight line be divided into any two parts, the rectangle contained by the whole line and one of the parts is equal to the square on that part together with the rectangle contained by the two parts.

6. The complements of the parallelograms about the diagonals of any parallelogram are equal to one another.

*7. Divide a given line so that the parts shall be in the ratio of 2 : 3.

*8. Two parallelograms, which are equal in area and have an angle in the one equal to an angle in the other, have the sides about the equal angles reciprocally proportional.

*9. If four right lines be proportional, the rectangle under the extremes will be equal to the rectangle under the means.

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* *Extra questions.*

FIRST YEAR EXHIBITIONS.

ENGLISH LITERATURE AND COMPOSITION.

SHAKSPERE: *Macbeth*.

MONDAY, SEPT. 18TH:—AFTERNOON, 2 TO 5.

Examiner,".....CHAS. E. MOYSE, B.A.

1. From what source did Shakspere draw material for *Macbeth*? Is the play universally recognized as entirely Shakspere's?

2. Illustrate the following subjects from the play, quoting Shakspere's precise words where you can:

(*a*) The unselfishness of Lady Macbeth's ambition.

(*b*) Lady Macbeth's strength of will.

(*c*) The want of precaution in Duncan, Banquo and Macduff.

(*d*) Macbeth's conscience.

3. Give an outline of the scenes in which the Witches take part, quoting at discretion as you proceed.

4. (*a*) Give the meaning (and nothing else) of the following words, as used in the play: ronyon. Weird, metaphysical. husbandry, dudgeon, filed, seeling, maggot-pies, chaudron, pester'd.

(*b*) Explain the following phrases: the shipman's card; the insane root: adder's fork; 'Tis called the evil: bear-like I must fight the course; the Roman fool.

Explain this passage:

"His two chamberlains
Will I with wine and wassail so convince
That memory, the warder of the brain,
Shall be a fume, and the receipt of reason
A limbec only."

5. State where the events described in the play take place.

6. On the following extracts make notes which refer to differences between Elizabethan and Modern English:

(*a*) Which the false man does easy.

(*b*) Upon the sightless couriers of the air.

(*c*) And all thing unbecoming.

(*d*) Our fears in Banquo stick deep.

(*e*) Words
Which would be howled out in the desert air

(*f* Running were as tedious as go o'er.

(*g*) May soon return to this our suffering country
Under a hand accurst.

(*h*) Only I say.

7. Scan :

(*a*) Are hired to bear their staves ; either thou, Macbeth

(*b*) My thought whose murder yet is but fantastical

(*c*) Attend his majesty !
A kind good night to all.

(*d*) The which no sooner had his prowess confirmed.

(*e*) That croaks the fatal entrance of Duncan.

(*f*) The newest state. This is the sergeant

(*g*) Authoriz'd by her grandam. Shame itself.

(*h*) Bounty, perseverance, mercy, lowliness.

ESSAY.

Write an Essay of not less than one page on *one* of the following subjects : Sports, History, Elocution.

EXHIBITION FOR 1st YEAR AND PRIZE IN APP. SCIENCE.

FIRST YEAR.

SEPTEMBER 19TH.

Examiners, ... { P. J. DAREY, LL.D. / REV. J. L. MORIN, M.A.

1. Write in the plural *sou, chou, bal, œil, ciel*. Give the rules.

2. Write the plural of *ce* demonstrative adjective, and demonstrative pronoun.

3. Where do you place the pronouns governed by the verb as direct and indirect objects ? In what order ? Translate as examples : *He gives it to thee, and He gives it to him.*

4. How do you translate : *He, she, they,* when followed by *who, whom?* Give two examples.

5. Distinguish between a *direct* and *indirect object*. Give two examples.

6. Interrogatively the verb *to have* in the *Preterite indefinite*, the *Past anterior*, *Future anterior*.

7. Write in full the *Preterite definite*, *the Present and the Past Subjunctive* of three of the following verbs: *aller*, *naître*, *venir*, *ne pas se lever*, *y avoir*, *aquérir*, *cueillir*, *absoudre*.

8. *Translate into French:* We grind our coffee ourselves. We are born in this world to prepare ourselves for a better one. I do not think she likes that little town. We resolved to go by the steamboat. They live on vegetables and milk food. There are ladies who know how to laugh, but who do not know how to smile. *And into English:* Les poulets éclôront la semaine prochaine. Ne déplaisons pas par des airs de hauteur. Il vit de peu. Il est nécessaire de traire les vaches deux fois par jour. Ces arbres ont beaucoup crû cet été.

9. *To the foregoing questions the candidates for the exhibition in Arts and the Garth prize in Science will please add the following questions.* What mistake is there in the sentence: *Ce fils est utile et chéri de sa famille.* Correct it.

Answer the same question for the sentence: *il me s'adressa.*

When two or more words form the subject of a verb, how do you write that verb, and in what person? Give two examples.

10. When do you translate the *English Pluperfect* by the *Past anterior* and when by the *Pluperfect* in French? Give two examples.

11. Translate into French:

Modesty is a very good quality, and which generally accompanies true merit: it engages and captivates the minds of the people; as, on the other hand, nothing is more shocking and disgustful than presumption and impudence. We cannot like a man who is always commending and speaking well of himself, and who is the hero of his own story.

CHESTERFIELD.

DONALDA DEPARTMENT.

FIRST YEAR EXHIBITIONS.

GERMAN.

SEPTEMBER 14TH:—9 TO 12.

Examiner.....L. R. GREGOR, B.A.

1. Translate:—

(*a*) Sagt mir, ihr holden Töchter der rauhen, schwarzen Erde, wer *gab* euch eure schöne Gestalt? Denn wahrlich von niedlichen

Fingern seid ihr gebildet. Welche kleinen Geister *stiegen* aus euren Kelchen empor? Und welch Vergnügen fühltet *ihr*, da sich Göttinnen auf euren Blättern wiegten? Sagt mir, friedliche Blumen, wie theilten sie sich in ihr *erfreuend* Geschäft, und winkten einander zu, wenn sie ihr feines Gewebe so vielfach spannen, so vielfach zierten und stickten?

(*b*) Ich wohn' *in einem* steinernen Haus,
Da *lieg'* ich verborgen und schlafe;
Doch ich trete hervor, ich eile heraus,
Gefordert mit eiserner Waffe.
Erst bin ich unscheinbar und *schwach* und klein,
Mich kann dein Atem bezwingen;
Ein Regentropfen schon *saugt* mich *ein*,
Doch mir wachsen im Siege die Schwingen;
Wenn die mächtige Schwester sich zu mir gesellt,
Erwachs' ich zum furchtbar'n Gebieter der Welt.

(*c*) "Warum strebtest du mit deinem zarten Leben so früh in die rauhe Zeit hinaus? Ein *schwaches* Geschlecht musz untergehen im Frost und Sturm. Wenn du aber nun dein kleines *Haupt* niederlegst im Hauche der Nacht, will ich dich in den Schoosz deiner Mutter *zurückbringen*, wo deine Geschwister noch *schlafen*. Frost und Stürme *vergehen*, doch das Leben *verbirgt sich* nur und kehrt wieder."

(*d*) Darob entbrennt in Roberts Brust,
Des Jägers, gift'ger Groll,
Dem langst von böser Schadenlust,
Die schwarze Seele schwoll;
Und trat zum Grafen, rasch zur That,
Und offen des Verführers Rat,
Als einst vom Jagen heim sie kamen,
Streut' ihm ins Herz des Argwohns Samen.

(*e*) Dem dunkeln Schoosz der heil'gen Erde.
Vertrauen wir der Hände That,
Vertraut der Sämann seine Saat,
Und hofft, dasz sie entkeimen werde
Zum Segen, nach des Himmels Rat.
Noch kostlicheren Samen bergen
Wir trauernd in der Erde Schoosz
Und hoffen, dasz er aus den Särgen
Erblühen soll zu schönerm Loos.

2. Parse in full the words italicised in the preceding passages.

3. Decline in the singular :—die schwarze Seele, ein schöneres Loos, ein steinernes Haus.

4. Give the nom. pl. of the following substantives: Bett, Handschuh Vetter, Wand, Buchstabe, Mutter, Wald, Schade, Wissenschaft, Herr, Gesell, Apfel, Koch, Magd, Kuh, Ast.

5. Distinguish between :—

Das Mittagsessen *war* serviert, als wir ankamen.

and

Das Mittagsessen *wurde* serviert, als wir ankamen.

6. What is the order of personal pronouns? Give sentences in illustration.

7. Give meanings, genders and all forms of nom. pl. of Laden, Land, Band, Bauer, See.

8. Tell all you know about the genitive of geographical proper names.

9. Decline the rel. pro. *der* in all genders and both numbers.

10. Which of the three forms of declension of the adjective do *etwas* and *nichts* take after them?

11. What kinds of antecedents may the pronoun *was* have?

12. Write a composition in German of not less than one hundred and fifty words on one of the following subjects :—Montreal, This University, School Life, Animals.

13. Translate into German :—

The teacher is ashamed of her because she has not finished her work. My father would send me to the city if I were old enough. We have presented flowers to Elizabeth and Mary. When we hastened home yesterday it was raining heavily. People who are not industrious do not become rich. If she had not been hoarse she would have sung. This blue ribbon is too long; please cut a little of it off for me. When the weather becomes cold the dogs like to creep behind the stove. When I was young I weighed more than my brother, but now he weighs more than I. It will have been a good lesson for us if it makes us more prudent in future. The women on the shore screamed and wrung their hands when the boat sank in which their husbands were.

SECOND YEAR ENTRANCE AND FIRST YEAR SUPPLEMENTAL.

GREEK.

Xenophon:—*Hellenics, Bk. I.*
Homer:—*Iliad, Bk. XXII.*

THURSDAY, SEPT. 14TH:—MORNING, 9 TO 11.

Examiners, ... { A. J. EATON, M.A., PH.D.
JOHN L. DAY, B.A.

I. Translate:—

(A) ὁ δὲ καλῶς μὲν ἔφη αὐτοὺς λέγειν, οὐ δυνατὸν δ' εἶναι παρ' ἃ βασιλεὺς ἐπέστειλεν αὐτῷ ἄλλα ποιεῖν. εἶναι δὲ καὶ τὰς συνθήκας οὕτως ἐχούσας, τριάκοντα μνᾶς ἑκάστῃ νηὶ τοῦ μηνὸς διδόναι, ὁπόσας ἂν βούλωνται τρέφειν Δακεδαιμόνιοι. ὁ δὲ Λύσανδρος τότε μὲν ἐσιώπησε. μετὰ δὲ τὸ δεῖπνον, ἐπεὶ αὖτω προπιὼν ὁ Κῦρος ἤρετο. τί ἂν μάλιστα χαρίζοιτο ποιῶν. εἶπεν ὅτι εἰ πρὸς τὸν μισθὸν ἑκάστῳ ναύτῃ ὀβολὸν προσθείης. ἐκ δὲ τούτου τέτταρες ὀβολοὶ ἦν ὁ μισθός, πρότερον δὲ τριώβολον. καὶ τόν τε προοφειλόμενον ἀπέδωκε καὶ ἔτι μηνὸς προέδωκεν, ὥστε τὸ στράτευμα πολὺ προθυμότερον εἶναι.

II. Turn the first two sentences into the direct narrative form, giving rules for any changes. τί ἂν μάλιστα χαρίζοιτο ποιῶν—Explain this use of the participle. To what is it here equivalent? εἶπεν ὅτι εἰ.....προσθείης—Remark on the construction. τοῦ μηνὸς, what genitive? How much was τριάκοντα μνᾶς?

III. Explain: (1) οἱ πρυτάνεις (2) ἡ ἐκκλησία (3) Ἀπατούρια (4) τὰς χεῖρας οὐκ ἂν καθεώρων (5) διαψηφίσασθαι κατὰ φυλάς.

IV. Translate :—

(B) Ἕκτορα δ' αὐτοῦ μεῖναι ὁλοὴ μοῖρ' ἐπέδησεν,
Ἰλίου προπάροιθε πυλάων τε Σκαιάων.
Αὐτὰρ Πηλείωνα προσηύδα Φοῖβος Ἀπόλλων·
Τίπτε με, Πηλέος υἱὲ, ποσὶν ταχέεσσι διώκεις,
Αὐτὸς θνητὸς ἐὼν θεὸν ἄμβροτον; οὐδέ νύ πώ με
Ἔγνως ὡς θεός εἰμι, σὺ δ' ἀσπερχὲς μενεαίνεις.
Ἦ νυ τοι οὔ τι μέλει Τρώων πόνος οὓς ἐφόβησας,
Οἳ δή τοι εἰς ἄστυ ἄλεν, σὺ δὲ δεῦρο λιάσθης.

V. Give Attic for Epic forms in Ext. B., and scan the first five lines, giving rules and explaining peculiarities. How do you account for the present tense ὡς θεός εἰμι after ἔγνως? Derive the epithet ἄμβροτον. In what sense in Homer is φοβέω mainly used? ἄλεν—what part of the verb? Mention the chief patronymic endings in Greek.

VI. Write a short analysis of Book XXII.

VII. Translate :—

(C) Πάντα δ' ὑπεμνήμυκε, δεδάκρυνται δὲ παρειαί.
Δευόμενος δέ τ' ἄνεισι πάϊς ἐς πατρὸς ἑταίρους,
Ἄλλον μὲν χλαίνης ἐρύων, ἄλλον δὲ χιτῶνος·
Τῶν δ' ἐλεησάντων κοτύλην τις τυτθὸν ἐπέσχεν,
Χειλεα μέν τ' ἐδίην', ὑπερῴην δ' οὐκ ἐδίηνεν.

VIII. ὑπεμνήμυκε—note the formation of this word. χλαίνης, χιτῶνος, what genitive? What was the χίτων? ἐπέσχεν—explain this form. Conjugate ἄνεισι in the Imperfect Indicative, and decline χείλεα.

IX. Shew by examples the uses of: ὥστε, ὡς, and πρίν.

SECOND YEAR ENTRANCE AND FIRST YEAR SUPPLEMENTAL.

LATIN.

CICERO :—*de Amicitia.*

VIRGIL :—*Aeneid XI., XII.*

LATIN PROSE COMPOSITION :—*Caesar Bk. II.*

THURSDAY, SEPT. 14TH :—2 TO 4.30 P.M.

Examiners :..... { A. JUDSON EATON, Ph.D. / JOHN L. DAY, B.A.

1. Translate :

Est amicitia nihil aliud, nisi omnium divinarum humanarumque rerum, cum benevolentia et caritate, consensio : qua quidem haud scio an, excepta sapientia, quidquam melius sit homini a Diis immortalibus datum. Divitias alii praeponunt, bonam alii valetudinem, alii potentiam, alii honores : multi etiam voluptates. Beluarum hoc quidem extremum : illa autem superiora caduca et incerta, posita non tam in consiliis nostris quam in fortunae temeritate. Qui autem in virtute summum bonum ponunt, praeclare illi quidem ; sed haec ipsa virtus amicitiam et gignit et continet : nec sine virtute amicitia esse ullo pacto potest. Iam virtutem ex consuetudine vitae sermonisque nostri interpretemur, nec eam, ut quidam docti, verborum magnificentia metiamur : virosque bonos eos, qui habentur, numeremus, Paullos, Catones, Gallos, Scipiones, Philos : his communis vita contenta est : eos autem omittamus, qui omnino nusquam reperiuntur. Tales igitur inter viros amicitia tantas opportunitates habet, quantas vix queo dicere.

2. (*a*) Give the principal parts of *metiamur, reperiuntur, queo.* (*b*) Account for the case of *beluarum, his :* the mood of *sit datum, numeremus reperiuntur.*

3. Translate :

Vix ea legati ; variusque per ora cucurrit
Ausonidum turbata fremor : ceu, saxa morantur
Quum rapidos amnis, fit clauso gurgite murmur,
Vicinaeque fremunt ripae crepitantibus undis.
Ut primum placati animi, et trepida ora quierunt,
Praefatus divos solio rex infit ab alto
Ante equidem summa de re statuisse, Latini,
Et vellem, et fuerat melius ; non tempore tali
Cogere concilium, quum muros adsidet hostis.

Bellum importunum, cives, cum gente deorum,
Invictisque viris, gerimus : quos nulla fatig ant
Proelia, nec victi possunt absi stere ferro.
Spem, si quam adscitis Aetolum habuistis in armis,
Ponite : spes sibi quisque. Sed haec, quam angusta, videtis.
Cetera qua rerum iaceant perculsa, ruina,
Ante oculos interque manus sunt omnia vestras,
Nec quemquam incuso. Potuit quae plurima virtus
Esse, fuit. Toto certatum est corpore regni.

4. (*a*) Supply an ellipsis in the first line. (*b*) *Ausonidum :* who are meant ? (*c*) *vellem :* what use of the subjunctive ? Explain the change to *fuerat* in the same rime. (*d*) *Ferro :* what case and why ? (*e*) *iaceant :* account for the mood. (*f*) In what sense is *potuit* here used ?

5. What rules are to be observed in the passage from *oratio recta* to *oratio obliqua ?* Illustrate.

6. Explain : Relative clause of characteristic ; accusative of specification : double accusative : substantive final clause ; contrary-to-fac condition.

7. Write a short account of the life of Virgil.

8. Translate :

(A) Caesar explained to Dwitiacus how greatly it concerned the Roman people that he should lead the forces of the Aedni into the country of the Bellorąci and lay waste their lands. After giving these instructions he sent off scouts, who soon reported that the Belgae were not far off. On getting this information, Caesar though the ought to pitch his camp on the other ide of the river whither the Remi and other States could bring supplies.

(B) Mittunt nobilissimos civitatis qui dicerent : Sibi esse in animo sine ullo maleficio iter per provinciam facere, propterea quod aliud iter haberent nullum ; rogare ut ejus voluntate id sibi facere liceat.

Turn (B) into the *oratio recta*.

SECOND YEAR ENTRANCE AND FIRST YEAR SUPPLEMENTAL.

ROMAN HISTORY.

TUESDAY, SEPTEMBER, 19TH:—2 TO 4 P.M.

Examiners..... .... { A. J. EATON, PH. D. / JOHN L. DAY, B.A.

A.

I. The reforms of Servius Tullius.

II. What events led to the First Secession of the Plebs? What was the result of this Secession?

III. Trace the steps by which the Plebs gained equality of civil rights.

IV. Describe the battle of the Caudine Forks, *or* the Capture of Rome by the Gauls (B. C. 390).

V. Who was Appius Claudius? What innovations did he introduce?

VI. Explain the constitution of the Senate. How many *comitia* were there? Distinguish them.

VII. (*a*) What occasioned the interference of Pyrrhus in Roman affairs? (*b*) What is meant by the term *Ager Romanus?*

B.

1. A short account of the character and works of Virgil.

2. Into what periods may the literature of Rome be divided?

3. Name the chief authors of the Augustan age. Mention works of each.

4. What was the *mime?*

5. What position does Livy hold as an historian?

SECOND YEAR.

SUPPLEMENTAL EXAMINATION.

SHAKESPERE:—*A Midsummer Night's Dream.*
TENNYSON:—*Gareth and Lynnette.*

MONDAY, SEPT. 18TH:—9 TO 12 A.M.

1. What are the three external tests of Chronology?
Write on the "Palladis Tamia."

2. Illustrate the balance of parts in A Midsummer Night's Dream.

3. Write on the Fairies of A Midsummer Night's Dream.

4. Describe the play of the Mechanicals, and illustrate your views by means of quotations.

5. Assign the following quotations to their respective speakers. Give the context in each case.

(*a*) "These are the forgeries of jealousy."

(*b*) "Not a whit: I have a device to make all well."

(*c*) "My mistress with a monster is in love."

(*d*) "My hounds are bred out of the Spartan kind."

(*e*) "When my cue comes, call me."

(*f*) "If we offend it is with our good will."

6. Write on the character of Theseus.

7. Mention the arguments used by Gareth to induce Bellicent to allow him to go to Arthur's hall.

8. Describe the gate of Camelot. Give the spiritual interpretation as you proceed.

9. Describe the first Combat.

10. What part is played by Lancelot in this poem?

SECOND YEAR EXHIBITIONS.

GREEK.

THURSDAY, SEPT. 14TH :—MORNING, 9 TO 11.

Examiners, ... { A. J. EATON, M.A., PH.D.
JOHN L. DAY, B.A.

I. Translate :—

(A)

Ὡς εἰπὼν τὸν κριὸν ἀπὸ ἕο πέμπε θύραζε.
ἐλθόντες δ' ἠβαιὸν ἀπὸ σπείους τε καὶ αὐλῆς
πρῶτος ὑπ' ἀρνειοῦ λυόμην, ὑπέλυσα δ' ἑταίρους.
καρπαλίμως δὲ τὰ μῆλα ταναύποδα, πίονα δημῷ,
πολλὰ περιτροπέοντες ἐλαύνομεν, ὄφρ' ἐπὶ νῆα
ἱκόμεθ'· ἀσπάσιοι δὲ φίλοις ἑτάροισι φάνημεν,
οἳ φύγομεν θάνατον· τοὺς δὲ στενάχοντο γοῶντες.
ἀλλ' ἐγὼ οὐκ εἴων, ἀνὰ δ' ὀφρύσι νεῦον ἑκάστῳ
κλαίειν· ἀλλ' ἐκέλευσα θοῶς καλλίτριχα μῆλα
πόλλ' ἐν νηῒ βαλόντας ἐπιπλεῖν ἁλμυρὸν ὕδωρ.
οἱ δ' αἶψ' εἴσβαινον καὶ ἐπὶ κληῖσι καθῖνον·
ἑξῆς δ' ἑζόμενοι πολιὴν ἅλα τύπτον ἐρετμοῖς.
ἀλλ' ὅτε τόσσον ἀπῆν ὅσσον τε γέγωνε βοήσας,
καὶ τότ' ἐγὼ Κύκλωπα προσηύδων κερτομίοισιν·

Homer, Odyssey IX.

(1) Remark on the forms ἕο, θύραζε, ταναύποα, εἴων, τύπτον. (2) Scan the line 11. (3) Comment on the use of the tense in στενάχοντο (l. 7), the mood of κλαιειν (l. 9), and the number of ἐλθόντες (l. 2).

(B)

Οἱ μὲν οὖν πολλοὶ Μακεδόνων πῶς ἔχουσι Φιλίππῳ, ἐκ

τούτων ἄν τις σκέψαιτ' οὐ χαλεπῶς· οἱ δὲ δὴ περὶ αὐτὸν ξένοι καὶ πεζέταιροι, δόξαν μὲν ἔχουσ' ὡς εἰσὶ θαυμαστοὶ καὶ συγκεκροτημένοι τὰ τοῦ πολέμου, ὡς δ' ἐγὼ τῶν ἐν αὐτῇ τῇ χώρᾳ γεγενημένων τινὸς ἤκουν ἀνδρός, οὐδαμῶς οἵου ψεύδεσθαι, οὐδένων εἰσὶν βελτίους. εἰ μὲν γάρ τις ἀνὴρ ἐστιν ἐν αὐτοῖς οἷος ἔμπειρος πολέμου καὶ ἀγώνων, τούτους μὲν φιλοτιμίᾳ πάντας ἀπωθεῖν αὐτὸν ἔφη, βουλόμενον πάνθ' αὑτοῦ δοκεῖν εἶναι τἄργα· πρὸς γὰρ αὖ τοῖς ἄλλοις καὶ τὴν φιλοτιμίαν ἀνυπέρβλητον εἶναι· εἰ δέ τις σώφρων ἢ δίκαιος ἄλλως, τὴν καθ' ἡμέραν ἀκρασίαν τοῦ βίου καὶ μέθην καὶ κορδακισμοὺς οὐ δυνάμενος φέρειν, παρεῶσθαι καὶ ἐν οὐδενὸς εἶναι μέρει τὸν τοιοῦτον. λοιποὺς δὴ περὶ αὐτὸν εἶναι λῃστὰς καὶ κόλακας καὶ τοιούτους ἀνθρώπους, οἵους μεθυσθέντας τὸρχεῖσθαι τοιαῦτα, οἷ' ἐγὼ νῦν ὀκνῶ πρὸς ὑμᾶς ὀνομάσαι. δῆλον δ' ὅτι ταῦτ' ἐστὶν ἀληθῆ. καὶ γὰρ οὓς ἐνθένδε πάντες ἀπήλαυνον, ὡς πολὺ τῶν θαυματοποιῶν ἀσελγεστέρους ὄντας, Καλλίαν ἐκεῖνον τὸν δημόσιον καὶ τοιούτους ἀνθρώμους, μίμους γελοίων καὶ ποιητὰς αἰσχρῶν ᾀσμάτων, ὧν εἰς τοὺς συνόντας ποιοῦσιν ἕνεκα τοῦ γελασθῆναι, τούτους ἀγαπᾷ καὶ περὶ αὐτὸν ἔχει.—DEMOSTH. OLYN. II. § 17.

(1) Give the derivation of πεζέταιροι, συγκεκροτημένοι, φιλοτιμίαν. (1) ἄν τις σκέψαιτο—explain the constructions in which ἄν is combined with a relative on conjunction. (3) Give an account of Philip's attack upon Olynthus, and its fall. What was the geographical position of this city, and the date of its capture?

(C)

ΣΩ. Τοῦτο τοίνυν αἴτιον ἔλεγον, ὅτι ἐγὼ αἴτιος μὴ καλῶς σε ἀποκρίνασθαι, ὅτι οὐ καλῶς ἠρόμην. βουλόμενος γάρ σου πυθέσθαι μὴ μόνον τοὺς ἐν τῷ ὁπλιτικῷ ἀνδρείους,

ἀλλὰ καὶ τοὺς ἐν τῷ ἱππικῷ καὶ ἐν ξύμπαντι τῷ πολεμικῷ εἴδει, καὶ μὴ μόνον τοὺς ἐν τῷ πολέμῳ, ἀλλὰ καὶ τοὺς ἐν τοῖς πρὸς τὴν θάλατταν κινδύνοις ἀνδρείους ὄντας, καὶ ὅσοι γε πρὸς νόσους καὶ ὅσοι πρὸς πενίας ἢ καὶ πρὸς τὰ πολιτικὰ ἀνδρεῖοί εἰσι, καὶ ἔτι αὖ μὴ μόνον ὅσοι πρὸς λύπας ἀνδρεῖοί εἰσιν ἢ φόβους, ἀλλὰ καὶ πρὸς ἐπιθυμίας ἢ ἡδονὰς δεινοὶ μάχεσθαι, καὶ μένοντες ἢ ἀναστρέφοντες— εἰσὶ γάρ πού τινες, ὦ Λάχης, καὶ ἐν τοῖς τοιούτοις ἀνδρεῖοι.

ΛΑ. Καὶ σφόδρα, ὦ Σώκρατες.

ΣΩ. Οὐκοῦν ἀνδρεῖοι μὲν πάντες οὗτοί εἰσιν, ἀλλ' οἱ μὲν ἐν ἡδοναῖς, οἱ δ' ἐν λύπαις, οἱ δ' ἐν ἐπιθυμίαις, οἱ δ' ἐν φόβοις τὴν ἀνδρείαν κέκτηνται· οἱ δέ γ', οἶμαι, δειλίαν ἐν τοῖς αὐτοῖς τούτοις.

ΛΑ. Πάνυ γε.

ΣΩ. Τί ποτε οὖν ἑκάτερον τούτων, τοῦτο ἐπυνθανόμην. πάλιν οὖν πειρῶ εἰπεῖν ἀνδρείαν πρῶτον, τί ὂν ἐν πᾶσι τούτοις ταὐτόν ἐστιν. ἢ οὔπω καταμανθάνεις ὃ λέγω;

ΛΑ. Οὐ πάνυ τι.—PLATO, LACHES, CH. XVIII.

II. Translate (at sight).

Μετὰ δὲ ταῦτα ἀναστὰς εἶπε Ξενοφῶν· "Ὦ ἄνδρες στρατιῶται τὴν μὲν πορείαν, ὡς ἔοικε, δῆλον ὅτι πεζῇ ποιητέον· οὐ γὰρ ἔστι πλοῖα· ἀνάγκη δὲ πορεύεσθαι ἤδη· οὐ γὰρ ἔστι μήνουσι τὰ ἐπιτήδεια. ἡμεῖς οὖν," ἔφη, "θυσόμεθα· ὑμᾶς δὲ δεῖ παρασκευάζεσθαι ὡς μαχουμένους. εἴ ποτε καὶ ἄλλοτε· οἱ γὰρ πολέμιοι ἀνατεθαρρήκασιν." ἐκ τούτου ἐθύοντο οἱ στρατηγοί, μάντις δὲ παρῆν Ἀρηξίων Ἀρκάς· ὁ δὲ Σιλανὸς ὁ Ἀμβρακιώτης ἤδη ἀποδεδράκει πλοῖον μισθωσάμενος ἐξ Ἡρακλείας. θυομένοις δὲ ἐπὶ τῇ ἀφόδῳ οὐκ ἐγίγνετο τά ἱερά. ταύτην μὲν οὖν τὴν ἡμέραν ἐπαύσαντο. καί τινες ἐτόλμων λέγειν, ὡς ὁ Ξενοφῶν βουλόμενος τὸ χωρίον οἰκίσαι πέπεικε τὸν μάντιν λέγειν, ὡς τά ἱερὰ

οὐ γίγνεται ἐπὶ ἀφόδῳ. ἐντεῦθεν κηρύξας τῇ αὔριον παρεῖναι ἐπὶ τὴν θυσίαν τὸν βουλόμενον, καὶ, μάντις εἴ τις εἴη, παραγγείλας, παρεῖναι ὡς συνθεασόμενον τὰ ἱερά, ἔθυε· καὶ ἐνταῦθα παρῆσαν πολλοί. θυομένων δὲ πάλιν εἰς τρὶς ἐπι τῇ ἀφόδῳ, οὐκ ἐγίγνετο τὰ ἱερά. ἐκ τούτου χαλεπῶς εἶχον οἱ στρατιῶται. καὶ γὰρ τὰ ἐπιτήδεια ἐπέλιπεν, ἃ ἔχοντες ἦλθον, καὶ ἀγορὰ οὐδεμία παρῆν.

SECOND YEAR EXHIBITIONS.

LATIN.

THURSDAY, SEPT. 14TH:—AFTERNOON, 2 TO 5.

Examiner,..... .....A JUDSON EATON, M.A., PH.D.

(A) VIRGIL, GEORGICS, BK I.

1. Mention the principal sources from which Virgil drew his material for the Georgics. State what influence Lucretius exercised on Virgil.

2. Translate:—

Tum liquidas corvi presso ter gutture voces
Aut quater ingeminant, et saepe cubilibus altis,
Nescio qua praeter solitum dulcedine laeti,
Inter se foliis strepitant; iuvat imbribus actis,
Progeniem parvam dulcisque revisere nidos:
Haud equidem credo, quia sit divinitus illis
Ingenium, aut rerum fato prudentia maior;
Verum, ubi tempestas et caeli mobilis humor
Mutavere vias, et Iuppiter uvidus austris
Denset, erant quae rara modo, et, quae densa, relaxat,
Vertuntur species animorum, et pectora motus
Nunc alios, alios, dum nubila ventus agebat,
Concipiunt; hinc ille avium concentus in agris.
Et laetae pecudes, et ovantes gutture corvi.

3. Write short notes on:—

(*a*) Eliadum palmas equarum. (*b*) Ille etiam exstincto miseratus Caesare Romam. (*c*) Deucalion vacuum lapides iactavit in orbem. (*d*) Lycaonis Arcton.

4. Scan the following lines, indicating any metrical peculiarities :

(*a*) Ante tibi Eoae Atlantides abscondantur—
(*b*) Ter sunt conati imponere Pelio Ossam.
(*c*) Lappaeque tribolique, interque nitentia culta—

(B) Horace, Odes, Bk. I.

1. Translate :—

O navis, referent in mare te novi
fluctus. O quid agis? Fortiter occupa
portum. Nonne vides, ut
nudum remigio latus,
et malus celeri saucius Africo
antennaeque gemant, ac sine funibus
vix durare carinae
possint imperiosius
aequor? Non tibi sunt integra lintea,
non di, quos iterum pressa voces malo,
Quamvis Pontica pinus,
silvae filia nobilis,
iactes et genus et nomen inutile:
nil pictis timidus navita puppibus
fidit. Tu, nisi ventis
debes ludibrium, cave.
Nuper sollicitum quae mihi taedium,
nunc desiderium, curaque non levis,
interfusa nitentes
vites aequora Cycladas.

5. (*a*) Is this poem allegorical? If so, explain the allusions in *celeri Africo, antennae, sine funibus, carinae.* (*b*) Explain the force of the subjunctive in *gemant, possint.* (*c*) Name the metre and write down the scheme.

(C) Livy, Bk. XXII.

6. Translate :

Contiones, priusquam ab urbe signa moverentur, consulis Varronis multae ac feroces fuere, denuntiantis, bellum arcessitum in Italiam ab nobilibus manusurumque in visceribus rei publicae, si plures Fabios imperatores haberet, se, quo die hostem vidisset, perfecturum. conlegae eius Pauli una pridie, quam ab urbe proficisceretur, contio fuit, verior quam gratior populo, qua nihil inclementer in Varronem dictum nisi id modo

mirari se, quod ne qui dux, priusquam aut suum aut hostium exercitum, locorum situm, naturam regionis nosset, iam nunc togatus in urbe sciret, quae sibi agenda armato forent, et diem quoque praedicere posset, qua cum hoste signis conlatis esset dimicaturus: se, quae consilia magis res dent hominibus quam homines rebus, ea ante tempus inmatura non praeceperum; optare, ut, quae caute ac consulte gesta essent, satis prospere evenirent: temeritatem, praeterquam quod stulta sit, infelicem etiam ad id rocorum fuisse. id sua sponte apparebat, tuta celeribus consiliis praeposilturum et quo id constantius perseveraret, Q. Fabius Maximus sic eum proficiscentem adlocutus fertur.

7. (*a*) Remark on the following grammatical constructions, found in the last extract: *verior quam gratior: nosset; ad id locorum; quo id constantius perseveraret.*

8. Comment on the grammar of the following expressions:

(*a*) pro eo, ut ipsi ex alieno agro raperent, agerentque, suas terras sedem esse videre.

(*b*) Primi, qua modo praeirent duces, signa sequebantur.

(*c*) Nec ante nos hinc moverimus, quam C. Flaminium ab Arretio patres acciverint.

(*d*) Ibi castra in aperto locat, ubi ipse cum Afris consideret.

(*e*) Inexplorato postero die, postquam in patentiorem campum pandi agmen coepit, id tantum hostium, quod ex adverso erat.

(D) Translation at Sight.

Hercules finds that some of his cattle have been stolen by Cacus, whom he slays.

Mane erat: excussus somno Tirynthius hospes
De numero tauros sentit abesse duos.
Nulla videt taciti quaerens vestigia furti:
Traxerat aversos Cacus in antra boves;
Cacus, Aventinae timor atque infamia silvae,
Non leve finitimis hospitibusque malum.
Dira viro facies; vires pro corpore; corpus
Grande: pater monstri Mulciber huius erat:
Proque domo longis spelunca recessibus ingens
Abdita, vix ipsis invenienda feris.
Ora super postes affixaque bracchia pendent,
Squalidaque humanis ossibus albet humus.
Servata male parte boum Iove natus abibat:
Mugitum rauco furta dedere sono.

Accipio revocamen, ait; vocemque secutus
Impia per silvas ultor ad antra venit.
Ille aditum fracti praestruxerat obice montis:
Vix iuga movissent quinque bis illud onus.
Nititur hic humeris (caelum quoque sederat illis),
Et vastum motu collabefactat onus:
Quod simul evolsum est, fragor aethera terruit ipsum;
Ictaque subsedit pondere molis humus.
Prima movet Cacus collata proelia dextra;
Remque ferox saxis stipitibusque gerit.
Quis ubi nil agitur, patrias male fortis ad artes
Confugit, et flammas ore sonante vomit.
Quas quoties proflat, spirare Typhoëa credas,
Et rapidum Aetnaeo fulgur ab igne iaci.
Occupat Alcides: adductaque clava trinodis
Ter quater adversi sedet in ore viri.
Ille cadit, mixtosque vomit cum sanguine fumos;
Et lato moriens pectore plangit humum.

SECOND YEAR EXHIBITIONS.

GENERAL PAPER.

TUESDAY, SEPT. 19TH:—AFTERNOON, 2 TO 5.

Examiners, ... { A. J. EATON, M.A., PH.D. / JOHN L. DAY, B.A.

1. Give a short account of the period known in Roman History as the Monarchy.

2. (*a*) Sketch the career of Miltiades. (*b*) An estimate of the character of Hannibal. (*c*) Describe the phalanx and the *testudo*. How was a *legio* composed?

3. (*a*) An account of the conspiracy of Catiline. (*b*) A brief summary of the main events in Grecian History from B.C. 404—371 (the Spartan Supremacy).

4. Write down the dat. and accus. sing., and dat. pl. of λέων, ἐλπίς, τιθείς, χαρίεις, γυνή, χείρ, θυγάτηρ, φρήν.

5. Exemplify the uses of ὡς, ἵνα, πρίν.

6. Show by examples the construction of *pareo*, *iubet*, *iubeo*, *tenus*, *quamvis*.

7. Illustrate the various uses of the Middle voice.

8. Turn the following passage into *oratio obliqua* (prefixing the words, Imperator milites in hunc modum hortabatur):

Instate; Cur nunc hic moramur? Nolite dubitare de vestra virtute aut de mea vigilantia. Si ignavus fuissem, vos deseruissem, urbs enim, ut opinor, non facile capietur.

9. Distinguish 'nescio quem suspicor,' and 'nescio quem suspicer.'

10. Distinguish εἶμι, εἰμί; εἰς, ἑῖς, ἐΐς; οἱ, οἵ, οἱ: soles and soles; sedet and sēdet; esset and ēsset;

11. Give a scheme, with illustrations, of the uses of the subjunctive in conditions.

12. Translate into Greek (accenting): (1) Speak well of those who have done you kind offices. (2) If I had known this, I would not have tried at all to dissuade him. (3) He has injured the state more than any other single person. (4) They chose war in preference to peace, because they are ambitious. (5) I admire your virtue and that of our friend.

13. Translate into Latin:

(1) There is no doubt that he promised to come to Athens, but he did not perform what he promised. (2) Although my kind friend Tullius promised to help me, he forgot his promise. The consequence was that I was left, while a boy, at Rome, without money to take me home; and there was no one to help me in my sore distress. Indeed, if the worthy Balbus had not seen and pitied me, I do not know what I should have done. His enemies used to say that he loved no one, and that no one loved him, but he asked me to come home with him, and treated me all the time I was in his house, like a man of humanity, as he was, with kindness and consideration.

SECOND YEAR EXHIBITIONS.

EUCLID, ALGEBRA, TRIGONOMETRY.

FRIDAY, SEPTEMBER 15TH:—MORNING, 9 TO 12.

Examiner,..... ALEX. JOHNSON, LL.D

1. Prove that in a right-angled triangle, any rectilineal figure described on the hypotenuse is equal to the sum of the two similar and similarly described figures on the sides containing the right angle. Why are the words "similarly described" inserted?

2. If four right lines be proportional, the similar rectilineal figures similarly described on them are also proportional.

3. Inscribe a circle in a given triangle.

(*a*) Describe a circle which shall touch the base and the two sides produced.

4. If a chord of a circle be drawn from the point of contact of a tangent, the angles which it makes with the tangent shall be equal to the angles in the alternate segments of the circle.

5. Find two numbers, one of which is 3-5ths of the other, so that the difference of their squares may be equal to 16.

6. A piece of work can be done by A and B in 4 days, by A and C in 6 days, and by B and C in 12 days; find in what time it would be done by A, B and C all working together.

7. Solve these equations.

(*a*) $x-y=2$; $xy=15$.

(*b*) $y+z=2a$, $z+x=2b$, $x+y=2c$.

(*c*) $\sqrt{2x+8}-2\sqrt{x+5}=2$.

8. Simplify $\dfrac{x^4+3x^3+6x+35}{x^4+2x^3-5x^2+26x+21}$

9. Prove $\sqrt{1+\sin A}=\sin \tfrac{1}{2}A+\cos \tfrac{1}{2}A$; and $(\sin A+\sin B)(\sin A-\sin B)=\sin(A+B)\sin(A-B)$.

10. Trace the changes in the signs of cosine and tangent as the angle increases from 0° to 360°.

11. Find the number of seconds in the radian (the conic of circular measure).

12. Find the sine of 18°.

SECOND YEAR EXHIBITIONS.

GEOMETRY.

FRIDAY, SEPTEMBER 15TH:—AFTERNOON 2 TO 5.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. If through a fixed point two transversals be drawn intersecting two given straight lines, and if the points of intersection be joined transversely, find the locus of the point of intersection of the joining lines.

2. If two circles do not meet one another, any system of circles cutting them orthogonally, always passes through two fixed points on the line joining the centres of the two given circles.

3. If a system of circles be described cutting a given circle orthogonally, and having their centres in a given straight line, the radical axis of the system will be the perpendicular from the centre of the given circle on the given line.

4. Describe a circle passing through a given point and touching two given circles.

5. The reciprocals of lines in harmonical profession are in Arithmetical progression.

6. State and prove Brianchon's theorem concerning a hexagon circumscribed to a circle.

7. Given the rectangle under the sides, the bisector of the base, and the difference of the base angles; construct the triangle.

8. If a perpendicular be drawn from the right angle of a triangle to the hypotenuse, the square on its reciprocal is equal to the sum of the squares on the reciprocals of the sides.

9. If a quadrilateral be *not* circumscribable by a circle, the rectangle under the diagonals is less than the sum of the rectangles under the opposite sides.

10. If circles be described passing through two given points and cutting a given circle, the chords of intersection will all pass through a fixed point on the straight line passing through the two given points, or will be parallel to this line.

11. One vertex of a triangle given in species turns round a fixed point, and another vertex moves along a fixed straight line; find the locus of the remaining vertex.

12. Three perpendiculars of a triangle are concurrent.

SECOND YEAR EXHIBITIONS.

THEORY OF EQUATIONS—ALGEBRA.

WEDNESDAY, SEPT. 20TH:—MORNING, 9 TO 12.

Examiner, ... ALEXANDER JOHNSON, LL.D.

1. Solve the equation

$$4x^3 - 24\tfrac{1}{2}x^2 + 23x + 18 = 0$$

for which the roots are in arithmetical progression.

2. Find the sum of the squares of the roots of the equation

$$x^3 - px^2 + qx - r = 0.$$

3. In an equation with real coefficients imaginary roots enter in pairs.

4. An equation $f(x) = 0$ cannot have more positive roots than there are changes of sign in $f(x)$, and cannot have more negative roots than there are changes of sign in $f(-x)$.

5. Find the equation whose roots are the squares of those of the equation

$$x^3 + px^2 + qx + r = 0.$$

6. In passing continuously from a value $a-h$ of x, a little less than a real root a of the equation $f(x) = 0$ to a value $a + h$, a little greater, the polynomials $f(x)$ and $f^1(x)$ have unlike signs immediately before the passage through and little signs immediately after.

(*a*) Show that this is true, no matter how many times the root a is repeated in $f(x) = 0$.

7. Find the equation whose roots are those of

$$x^4 - 5x^3 + 7x^2 - 17x + 11 = 0,$$

each diminished by 4.

8 If two rational integral functions of n dimensions are equal for more than n values of the variable, they are equal for every value of the variable.

(*a*) Find by the method of indeterminal coefficients the sum of n terms of $1^2 + 3^2 + 5^2 +$ etc.

9. Find a general formula giving the present value of a deferred annuity to commence at the end of p years and to continue for n years, allowing compound interest.

10. Find the number of triangles that can be formed by joining the three angular points of a quindecagon.

11. Find the greatest coefficient in the expansion of $(1 + x)^n$.

12. Resolve $\frac{6x^3 + 5x^2 - 7}{3x^2 - 2x - 1}$ into partial fractions

HIGHER ENTRANCE EXAMINATION AND SECOND YEAR EXHIBITIONS.

ENGLISH GRAMMAR.

MONDAY, SEPTEMBER 18TH :—9 TO 12 A M.

Examiners, ... { CHAS. E. MOYSE, B.A. / W. J. MESSENGER, B.A.

HIGHER ENTRANCE EXAMINATION.

1. (*a*) What do you understand by "Gender" in grammar? Show that your definition applies to the following words: lady, seamstress, testatrix, mistress, heroine, bridegroom.

(*b*) Write the plurals of: Mosquito, no, Livy, appendix, miasma, colloquy, court-martial, solo, grouse, stratum.

2. (*a*) Define case, and show that in Older English the noun was more highly inflected that now.

(*b*) Give examples of the different uses (1) of words ending in "ing" and (2) of "but."

3. "Adverbs are for the most part formed by inflection, derivation or composition from nouns, adjectives and pronouns."
Illustrate this fully.

4. (*a*) Define "Conjunction." Give a full classification of conjunctions.

(*b*) Give the principal parts of *kneel, read, sit, gird, rive, lade, bid tear, flow, mow.*

Analyse the following, and parse italicized words:

"*Is* bees
In springtime when the Sun with Taurus rides,
Pour forth their populous *youth* about the hive
In clusters; they *s*mong fresh dews and flowers
Fly *to and fro,* or on the smoothed plank,
The *suburb* of their straw built citadel,
New-rubbed with balm, *expatiate* and *confer*
Their state *affairs;* so *thick* the airy *crowd*
Swarmed and *were straitened*"

6. (1) Correct or justify the following, giving your reasons:

(*a*) In the observance of the laws consists the stability and welfare of the kingdom.

(*b*) Whom do you think it is?

(*c*) The creed of Zoroaster supposes the existence of a benevolent and malevolent principle.

(*d*) There have been three famous talkers in England, either of whom would illustrate what I say about dogmatists well enough for my purpose.

(2) Make notes on *all, half, many, few, more,* and their uses.

(3) Illustrate the difference between notional and auxiliary verbs.

SECOND YEAR EXHIBITIONS.

(Candidates to answer the last 3 questions in the Higher Entrance paper and the following.)

7. State the meaning and origin (Anglo-Saxon or Classic) of the suffixes in the following words: *drunkard, liar, hireling, sponsor, chancellor, wisdom, shovel, voyage, infancy, tapster, wedlock, globule, memory, chapel, sickle.*

8. (*a*) What is Hybridism? Give six examples.

(*b*) Derive *peripatetic, synod, lord, fee, anathema, premature, rather, fathom, meander, genteel.*

(*c*) What traces of Danish occupation do we find in local English names?

9. Analyse the following and parse the italicized words:

> "And *yet not so*—*for what* can we bequeath
> *Save* our deposed bodies to the ground.
> Our lands, our lives, our all are *Bolingbroke's,*
> And nothing can we call our *own* but death
> And that small model of the barren earth
> Which serves *as paste* and cover to our bones.

SECOND YEAR EXHIBITIONS.

ENGLISH LITERATURE.

WEDNESDAY, SEPT. 20TH: —AFTERNOON, 2 TO 5.

Examiners, ... { CHAS. E. MOYSE, B.A. / P. T. LAFLEUR, M.A.

(N.B.—Write the answers to A and B on separate sets of papers.)

A.

SHAKSPERE, *As You Like It.*

1. Discuss the character of Jaques, and the part he takes in the story of the play.

2. Narrate, *in outline,* the events contained in Act II, *or* those contained in Act IV.

3. Make explanatory notes on :—the poor allotery my father left me by testament ; a quintain, a mere lifeless block, the toad, ugly and venomous ; wears yet a precious jewel in his head ; bearded like the pard ; Caesar's thrasonical brag : It is not the fashion to see the lady the epilogue.

4. Give some *precise* idea of the merits of Shakspere as a writer of comedies, drawing your illustrations from the play *As You Like It*.

B.

TRENCH, *Study of Words*.

(The paper is the same as that set for the Third Year Scholarships.)

SECOND YEAR EXHIBITIONS

AND FIRST YEAR SUPPLEMENTAL.

FRENCH.

Examiners, ... { J. P. DAREY, M.A., LL.D., OFFICIER D'ACADÉMIE.
J. L. MORIN, M.A.

1. Translate into French :—

Le Berger et la Mer.

Du rapport d'un troupeau dont il vivait sans soins,
Se contenta longtemps un voisin d'Amphitrite.

Si sa fortune était petite
Elle était sûre (*a*) tout au moins.

A la fin, les trésors déchargés sur la plage (*a*)
Le tentèrent si bien qu'il vendit (*b*) son troupeau,
Trafiqua (*d*) de l'argent, la mit entier sur l'eau.
Cet argent périt par naufrage.

Son maître fut réduit à garder les brebis,
Non plus berger en chef comme il était jadis,
Quand ses propres moutons paissaient (*c*) sur le rivage :
Celui qui s'était vu Coridon ou Tircis,
Fut Pierrot, et rien davantage.

LA FONTAINE, *Livre IV, Fable II.*

2. Write the first two lines of that fable in their grammatical order.
(*a*) Give two homonyms of this word with their meaning.

(*b*) Conjugate that verb in all the simple tenses, giving the first person singular.

(*c*) What other word could be used here with the same meaning?

(*d*) How do you explain the use of the Preterite definite here as well as in the two previous verbs?

(*e*) And the use of the Imperfect here?

3. Give five cases where the article is used in French and not in English, and five cases where it is used in English and not in French.

4. What adjectives are *always* placed before the nouns, and what are those which are always placed after? Give two examples of each.

5. State the rules with relation to the following words: *nu, feu, franc de port, quelque, air, amour*.

6. (*a*) How is the adverb of negation *ne* completed?

(*b*) With what verb is it used alone?

(*c*) When must it be used and when suppressed after the verbs (1) *craindre, trembler*, etc., and (2) after *douter, nier*, etc.?

7. Translate into English:—

Harpagon. Ne vous offensez pas, ma belle, si je viens à vous avec des lunettes. Je sais que vos appas frappent assez les yeux, son assez visibles d'eux-mêmes, et qu'il n'est pas besoin de lunettes pour les apercevoir; mais enfin, c'est avec des lunettes qu'on observe les astres; et je maintiens et garantis que vous êtes un astre, mais un astre, le plus bel astre qu'il soit dans pays des astres. Frosine, elle ne répond mot, et ne témoigne, ce me semble, aucune joie de me voir.

8. Translate:—Of the works of that author, nothing can be recommended except his fables. In these he has surpassed every other writer, and the name of the Inimitable La Fontaine has been given him by common consent. His fables are perfectly natural and replete with wit. He was a man of extreme simplicity of manners; full of candor and probity; but in society he was always absent-minded and thoughtful, so much so that he often spoke to his friends without knowing them.

SECOND YEAR EXHIBITIONS.

GERMAN.

Examiner ..... L. R. Gregor, B.A.

September 19th :—9 to 12.

1. Translate into English :—

(*a*) Es war ein *Mädchen* faul und wollte nicht spinnen, und die Mutter mochte sagen, was sie wollte, sie konnte es nicht dazu *bringen*. Endlich *übernahm* die *Mutter* einmal Zorn und Ungeduld, dasz sie ihm Schläge gab, worüber es laut zu weinen *anfing*. Nun fuhr gerade die Königin vorbei und als sie das Weinen hörte, *liesz* sie anhalten, *trat* in das Haus und fragte die Mutter, warum sie ihre *Tochter* schlüge, dasz man drauszen auf der Strasze das Weinen hörte. Da schämte sich die Frau, dasz sie die Faulheit ihrer Tochter offenbaren sollte, und *sprach:* " Ich kann sie nicht vom *Spinnen* abbringen, sie will immer und ewig spinnen, und ich bin arm und kann den Flachs nicht herbeischaffen."

(*b*) Wie eine Schnecke kam er zu einem Feldbrunnen geschlichen, da wollte er ruhen und sich mit einem frischen Trunk laben ; damit er aber die Steine im Niedersetzen nicht beschädigte, *legte* er sie bedachtig neben sich an den Rand des Brunnens. Darauf drehte er sich und wollte sich zum Trinken bücken ; da *versah* er's, *stiesz* ein klein wenig an, und beide Steine plumpten hinab. Hans *sprang* vor Freuden auf, kniete dann nieder und dankte Gott mit Thränen in den *Augen*, dasz er ihm auch diese Gnade *erwiesen* und auf eine so gute *Art* von den Steinen befreit, das sei das Einzige, was ihm noch zu seinem Glück gefehlt habe. " So glücklich wie ich," rief er aus, *giebt es* keinen Menschen unter der Sonne." Mit leichtem Herzen und frei von aller Last sprang er nun, bis er daheim bei seiner Mutter war.

(*c*) Drum vor dem ganzen Dienertrosz,
Die Gräfin ihn *erhob;*
Aus ihrem schönen Munde *flosz;*
sein unerschöpftes Lob,
Sie *hielt* ihn nicht als ihren *Knecht.*
Es gab sein Herz ihm Kindesrecht;
Ihr klares Auge mit Vergnügen.
Hing an den wohlgestalten *Zügen.*

2. Parse carefully the words italicised in the preceding passages.

3. Decline: ein leichtes Herz, ihr schöner Mund, die kleine Hand.

4. Give the two main classes of verbs which take the auxiliary *sein*.

5. Conjugate *sein* in all moods and tenses, giving the English of the 1st person of each tense.

6. Give three forms of the nom. sing. masc. of the poss. pro. *his*.

7. Explain the termination of the adjective in the expression *der Pariser Handschuh*.

8. Compare the following adjectives:—gut, viel, grosz, breit.

9. Give the nom. pl. of the following substantives:—Baum, Glas, Vorhang, Ofen, Feuer, Schaf, Nachbar, Gedanke, Sohn, Einflusz, Monarch, Blatt, Chor, Hand.

10. What prepositions govern both the accusative and the dative? Explain the distinction. Illustrate by means of well-composed sentences containing relative pronouns—two sentences for each case.

11. Distinguish between Sie and ihr (pers. pronouns). When are they severally employed?

12. Translate into German:—

The scholars praise themselves because they have done their exercise so quickly. What would you pay for these glasses? Would the girl be contented if she were with her mother? Charles, bring Fred and Max and we shall play in the garden. The north, the south, the east and the west are the four cardinal points of the compass. The honey, which the countryman brought us yesterday, is not good. I like to hear the singer who sang in the concert yesterday. Little Charles is a naughty child; he has torn his new dress. The professor seemed not to be at home, for his windows and shutters were not open. If Charles tears his new book his mother will be very angry. Schiller and Beethoven were Germans; the latter was a great musician, the former a great poet. In the year eighteen hundred and eighty-seven Queen Victoria celebrated the fiftieth year of her reign.

(DONALDA DEPARTMENT.)

SECOND YEAR EXHIBITION EXAMINATIONS.

GERMAN.

Examiner..... ..... L. R. Gregor, B.A.

September 14th:—9 to 12.

1. Translate:—

(*a*) Und zwischen Trug,und Wahrheit schwebet
Noch zweifelnd jede Brust und bebet,
Und huldiget der furchtbar'n *Macht*,
Die richtend im *Verborg' nen* wacht,
Die, unerforschlich, unergründet
Des Schicksals dunkeln Knäuel flicht,
Dem tiefen *Herzen* sich verkündet,
Doch fliehet vor dem Sonnenlicht.

(*b*) Ja, Schurke, ich will dich tanzen machen!—Und die Quittung uber die hundert Pistolen, merk' ich jetzt wohl, habe ich auch nicht der Ehrlichkeit des Wucherers zu verdanken.—Zu meinem Gluck hat der Juwelier Bankerott gemacht—Mein Taugenichts von Neffe begnugte sich, seine Schulden mit meinem Gelde zu bezahlen; er macht auch noch neüe auf meinen Credit.—Schon gut! Er soll mir dafur bezahlen!—Und du, ehrlicher Gesell, rechne auf eine tüchtige Belohnung.

(*c*) Diesen Morgen habe ich das Urtheil angehört, welches Ew. Majestät gefallen hat uber mich *aussprechen* zu lassen. So weit ich auch immer davon entfernt gewesen bin, gegen die Person und den Dienst Ew. Majestät, oder gegen die einzig wahre alte und katholische Religion etwas zu *unternehmen*, so *unterwerfe* ich mich dennoch dem Schicksale mit Geduld, welches Gott gefallen hat, über mich zu verhängen.

2. Parse carefully the words italicised in the preceding passages.

3. Decline in the singular: die furchtbare Macht, ihr unglückliches Schicksal, der spöttische Ton.

4. When is the definite article employed in German contrary to English usage?

5. What classes of nouns are neuter in German? Limit your answer to gender as determined by meaning.

6. Comment on the mood and tense of indirect statements. Give examples.

7. When do substantives expressing quantity (measure, weight and number) retain the form of the singular?

8. Conjugate the present indicative of all the modal auxiliaries.

9. Er hätte gehen können. Comment on the last word of the above sentence.

10. When is *als* used in comparison?

11. Write a composition in German of not less than two hundred words on one of the following subjects:—Canada, Summer Holidays.

12. Translate into German:—

We should praise ourselves, too, if we had done our exercise. Our parents travelled in Germany and Switzerland. The teacher praised his scholars, and said to them "You have been diligent." If Charles is not ready we shall go without him to Germany. Buying is pleasant, but paying is very disagreeable. When we hastened home yesterday it was raining heavily. High mountains and beautiful valleys spread out before us. The rain spoiled my journey to the country. Fifty years ago Queen Victoria ascended the throne. Green is agreeable to those who have weak eyes. The upper part of the city of Quebec is much finer than the lower. This is my neighbour of whom you have already heard so much. The eldest son of the Queen of England was born the ninth of November, one thousand eight hundred and forty-one. Good evening, my little friend, how do you do? The pen still lies on the book on which I laid it.

SECOND YEAR EXHIBITIONS.

CHEMISTRY.

MONDAY, SEPT. 18TH:—AFTERNOON, 2 TO 5.

Examiner,..... .....B. J. HARRINGTON, B.A., PH.D.

1. How is Hydrogen Dioxide prepared, and what are its properties?

2. What gas is given off when Sodium Acetate and Caustic Soda are heated together? Describe its properties.

3. Calculate the weight of one liter of Hydrochloric Acid Gas at 10° c and 780 m.m.

4. Why is Hydrogen regarded as the vapour of a highly volatile metal?

5. What takes place when Lead Nitrate is strongly heated? Write the equation.

6. How many pounds of Iron Pyrites ($Fe\ S_2$) would be required to make a ton of Sulphuric Acid?

7. Explain the relation of specific heat to atomic weight.

8. State what you know with regard to the principal salts of Mercury and their preparation.

9. What is (1) a compound radical, (2) an anhydro salt, (3) a basic salt, (4) a crystalloid. Give examples.

10. Give the formulæ of the Oxides of Iron, Cobalt and Nickel.

CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS.

GREEK.

THURSDAY, SEPTEMBER 14TH :—MORNING, 9 TO 12.

Examiners,.....REV. GEORGE CORNISH, M.A., L.L.D.

1. Translate :—(A) Demosthenes, the Olynthiacs :—

1. Φημὶ δὴ δεῖν ὑμᾶς ἅμα τοῖς μὲν Ὀλυνθίοις βοηθεῖν, (καὶ ὅπως τις λέγει κάλλιστα καὶ τάχιστα οὕτως ἀρέσκει μοι.) πρὸς δὲ Θετταλοὺς πρεσβείαν πέμπειν, ἡ τοὺς μὲν διδάξει ταῦτα τοὺς δὲ παροξυνεῖ· καὶ γὰρ νῦν εἰσὶν ἐψηφισμένοι Παγασὰς ἀπαιτεῖν, καὶ περὶ Μαγνησίας λόγους ποιεῖσθαι. σκοπεῖσθε μέντοι τοῦτο, ὦ ἄνδρες Ἀθηναῖοι, ὅπως μὴ λόγους ἐροῦσι μόνον οἱ παρ' ἡμῶν πρέσβεις, ἀλλὰ καὶ ἔργον τι δεικνύειν ἔξουσιν, ἐξεληλυθότων ἡμῶν ἀξίως τῆς πόλεως, καὶ ὄντων ἐπὶ τοῖς πράγμασιν· ὡς ἅπας μὲν λόγος, ἂν ἀπῇ τὰ πράγματα, μάταιόν τι φαίνεται καὶ κενόν, μάλιστα δὲ ὁ παρὰ τῆς ἡμετέρας πόλεως· ὅσῳ γὰρ ἑτοιμότατ' αὐτῷ δοκοῦμεν χρῆσθαι τοσούτῳ μᾶλλον ἀπισ-

τοῦσι παντες αὐτῷ. πολλὴν δὴ τὴν μετάστασινκὶ μεγάλην δεικτέον τὴν μεταβολήν, εἰσρέροντας, 'ξιόντας, ἅπαντα ποιοῦντας ἑτοίμως, εἴπερ τις ὑμῖν προσέξει τὸν νοῦν. κἄν ταῦτα ἐθελήσητε ὡς προσήκει καὶ δεῖ, περαίνειν, οὐ μόνον, ὦ ἄνδρες 'Αθηναῖοι, τὰ συμμαχικὰ ἀσθενῶς καὶ ἀπίστως ἔχοντα φανήσεται Φιλίππῳ, ἀλλὰ καὶ τὸ τῆς οἰκείας ἀρχῆς καὶ δυνάμεως κακῶς ἔχοντα ἐξελεγχθήσεται.

2. Write short explanatory notes on :—(1) εὔθυναι ῥᾴδιαι. (2) ἐν ἡλικίᾳ. (3) εἰσφέροντας. (4) ἀνεχαίτισε. (5) πεφενάκικεν (6) λειτουργίαι. (7) ὦ τᾶν. (8) τὴν μετάστασιν—τὴν μεταβολήν. (9) ὑποστείλεσθαι.

3. Explain the metaphors in :—ὑποστείλασθαι, πεφενάκικεν, ἀνεχαιτισε, ἤνθησεν, φωρᾶται, καταρρεῖ, συγκεκροτημένοι.

4. Translate :—(B) Thucydides, Bk. VI., chap. 75.

5. Translate carefully the following extt :—(*a*) cap. 1.—τοσαύτη οὖσα * * * διέργεται τὸ μὴ ἤπειρος οὖσα;—explain the use of μὴ in such phrases. (*b*) cap. 2.—πρῶτοι φαίνονται :—distinguish between φαίνομαι with the Infinitive, and the Participle as here. (*c*) cap. 6.—ὧν ἀκούοντες οἱ 'Αθηναῖοι * * * πολλάκις λεγόντων :—account for the use of two genitives with ἀκούω. (*d*) cap. 33.—ὡς οὖν παρεσομένων :—give the force of ὡς. (*e*) cap. 59.—ὡς βασιλέα :—explain this use of ὡς, and also of βασιλέα without the Article. (*f*) cap. 72.—ἑαυτῆς θαρσαλεωτέραν :—explain the construction.

6. Translate :—(C) Herodotus, Bk. VII., Chaps. 55–56.

7. Comment on the following phrases in these chaps. (*a*) *πρὸς τοῦ Πόντου.* (*b*) *ἡ θεραπίη.* (*c*) *πρῶτα.* (*d*) *ἐλινύσας.* (*e*) *ἀνάστατον.*

8. Give an account of the dialect used by Herodotus, and turn the following words into the common dialect:—*ὧν, ποιέει, ἑωυτοῦ, ἀπίκατο, ὅτεῳ, πλώοντας, τριηχέως, νῆας, πείθεο, πλεῦνες, οἰκός.*

9. Translate:—(1) Plato, Apology:—*Πρὸς αὐτῶν τοίνυν, ὦ Μέλητε, τούτων τῶν θεῶν, ὧν νῦν ὁ λόγος ἐστίν, εἰπὲ ἔτι σαφέστερον καὶ ἐμοὶ καὶ τοῖς ἀνδράσι τουτοισι. ἐγὼ γὰρ οὐ δύναμαι μαθεῖν, πότερον λέγεις διδάσκειν με νομίζειν εἶναι τινας θεούς, καὶ αὐτὸς ἄρα νομίζω εἶναι θεοὺς καὶ οὐκ εἰμὶ τὸ παράπαν ἄθεος οὐδὲ ταύτῃ ἀδικῶ, οὐ μέντοι οὕσπερ γε ἡ πόλις, ἀλλ' ἑτέρους, καὶ τοῦτ' ἔστιν ὅ μοι ἐγκαλεῖς, ὅτι ἑτέρους. ἢ παντάπασί με φῂς οὔτε αὐτὸν νομίζειν θεοὺς τούς τε ἄλλους ταῦτα διδάσκειν. Ταῦτα λέγω, ὡς τὸ παράπαν οὐ νομίζεις θεούς. Ὦ θαυμάσιε Μέλητε, ἵνα τί ταῦτα λέγεις: οὐδὲ ἥλιον οὐδὲ σελήνην ἄρα νομιζω θεοὺς εἶναι, ὥσπερ οἱ ἄλλοι ἄνθρωποι; Μὰ Δί', ὦ ἄνδρες δικασταί, ἐπεὶ τὸν μὲν ἥλιον λίθον φησὶν εἶναι, τὴν δὲ σελήνην γῆν. Ἀναξαγόρου οἴει κατηγορεῖν, ὦ φίλε Μέλητε· καὶ οὕτω καταφρονεῖς τῶνδε καὶ οἴει αὐτοὺς ἀπείρους γραμμάτων εἶναι, ὥστε οὐκ εἰδέναι, ὅτι τὰ Ἀναξαγόρου βιβλία τοῦ Κλαζομενίου γέμει τούτων λόγων. καὶ δὴ καί οἱ νέοι ταῦτα παρ' ἐμοῦ μανθάνουσιν, ἃ ἔξεστιν ἐνίοτε, εἰ πάνυ πολλοῦ, δραχμῆς ἐκ τῆς ὀρχήστρας πριαμένοις Σωκράτους καταγελᾶν, ἐὰν προσποιῆται ἑαυτοῦ εἶναι, ἄλλως τε καὶ οὕτως ἄτοπα ὄντα· ἀλλ' ὦ πρὸς Διός, οὕτωσί σοι δοκῶ οὐδένα νομίζειν θεὸν εἶναι; Οὐ μέντοι μὰ Δι', οὐδ' ὁπωστιοῦν.*

(1) *ὧν νῦν λόγος ἐστίν* :—what use of the Genitive? (2) *μὰ Δί'* :—Parse and explain this formula. (3) *δραχμῆς ἐ· τῆς ὀρχήστρας* :—write an explanatory note on this.

10. Translate :—(E) Plato, Crito :—

ΣΩ. Ἀλλ', ὦ Κρίτων, τύχῃ ἀγαθῇ, εἰ ταύτῃ τοῖς θεοῖς φίλον, ταύτῃ ἔστω. οὐ μέντοι οἶμαι ἥξειν αὐτὸ τήμερον. ΚΡ. Πόθεν τοῦτο τεκμαίρει; ΣΩ. Ἐγώ σοι ἐρῶ. τῇ γὰρ που ὑστεραίᾳ δεῖ με ἀποθνήσκειν ἢ ᾗ ἂν ἔλθῃ τὸ πλοῖον. ΚΡ. Φασί γέ τοι δὴ οἱ τούτων κύριοι. ΣΩ. Οὐ τοίνυν τῆς ἐπιούσης ἡμέρας οἶμαι αὐτὸ ἥξειν, ἀλλὰ τῆς ἑτέρας. τεκμαίρομαι δὲ ἔκ τινος ἐνυπνίου, ὃ ἑώρακα ὀλίγον πρότερον ταύτης τῆς νυκτός· καὶ κινδυνεύεις ἐν καιρῷ τινι οὐκ ἐγεῖραί με. ΚΡ. Ἦν δὲ δὴ τί τὸ ἐνύπνιον; ΣΩ. Ἐδόκει τίς μοι γυνὴ προσελθοῦσα καλὴ καὶ εὐειδής, λευκὰ ἱμάτια ἔχουσα, καλέσαι με καὶ εἰπεῖν, Ὦ Σώκρατες, ἥματί κεν τριτάτῳ Φθίην ἐρίβωλον ἵκοιο. ΚΡ. Ὡς ἄτοπον τὸ ἐνύπνιον, ὦ Σώκρατες. ΣΩ. Ἐναργὲς μὲν οὖν, ὡς γ' ἐμοὶ δοκεῖ, ὦ Κρίτων.

(1) Explain the import of *τύχῃ ἀγαθῇ*, and express it in Latin. (2) Give as accurately as you can the import of the particles :—*μέν—δέ. τοίνυν. εἰ–γάρ. δή. καὶ δὴ καί. ἆρα. ἄρα. οὖν. γέ.*

11. Translate :—(F) Xenophon, Memorabilia, Bk. I. :—

Λέξω δὲ πρῶτον, ἃ ποτε αὐτοῦ ἤκουσα περὶ τοῦ δαιμονίου διαλεγομένου πρὸς τὸν Μικρὸν ἐπικαλούμενον. Καταμαθὼν γὰρ αὐτὸν οὔτε θύοντα τοῖς θεοῖς οὔτ' εὐχόμενον οὔτε μαντικῇ χρώμενον, ἀλλὰ καὶ τῶν ποιούντων ταῦτα καταγελῶντα. Εἰπέ μοι, ἔφη, ὦ Ἀριστόδημε, ἔστιν οὕστινας ἀνθρώπων τεθαύμακας ἐπὶ σοφίᾳ;—Ἔγωγ', ἔφη. —Καὶ ὅς, λέξον ἡμῖν, ἔφη, τὰ ὀνόματα αὐτῶν.—Ἐπὶ μὲν

τοίνυν ἐπῶν ποιήσει Ὅμηρον ἔγωγε μάλιστα τεθαύμακα, ἐπὶ δὲ διθυράμβῳ Μελανιππίδην, ἐπὶ δὲ τραγῳδίᾳ Σοφοκλέα. ἐπὶ δὲ ἀνδριαντοποιίᾳ Πολύκλειτον, ἐπὶ δὲ ζωγραφίᾳ Ζεῦξιν. Πότερά σοι δοκοῦσιν οἱ ἀπεργαζόμενοι εἴδωλα ἄφρονά τε καὶ ἀκίνητα ἀξιοθαυμαστότεροι εἶναι, ἢ οἱ ζῶα ἔμφρονά τε καὶ ἐνεργά;—Πολύ, νὴ Δία, οἱ ζῶα, εἴπερ γε μὴ τύχῃ τινὶ, ἀλλὰ ὑπὸ γνώμης ταῦτα γεγένηται. Τῶν δὲ ἀτεκμάρτως ἐχόντων, ὅτου ἕνεκά ἐστι, καὶ τῶν φανερῶς ἔτ' ὠφελείᾳ ὄντων, πότερα τύχης καὶ πότερα γνώμης εἶναι ἔργα κρίνεις; πρέπει μὲν τὰ ἐπ' ὠφελείᾳ λιγνόμενα γνώμης ἔργα εἶναι. Οὐκοῦν δοκεῖ σοι ὁ ἐξ ἀρχῆς ποιῶν ἀνθρώπους ἐπ' ὠφελείᾳ προσθεῖναι αὐτοῖς δι' ὧν αἰσθάνονται ἕκαστα, ὀφθαλμοὺς μὲν ὥστε ὁρᾶν τὰ ὁρατὰ, ὦτα δὲ ὥσθ' ἀκούειν τὰ ἀκουστά; ὁσμῶν γε μήν, εἰ μὴ ῥῖνες προσετέθησαν, τί ἂν ἡμῖν ὄφελος ἦν; τίς δ' ἂν αἴσθησις ἦν γλυκέων καὶ δριμέων καὶ πάντων τῶν διὰ στόματος ἡδέων, εἰ μὴ γλῶττα τοῦτων γνώμων ἐνειργάσθη.

(*a*) Write short explanatory notes (syntactical) on:—(1) αὐτοῦ ἠκουσα. (2) αὐτὸν θύοντα. (3) μαντικῇ. (4) ἔστιν. οὔστινας ἀνθρώπων; (5) τῶν ποιούντων ταῦτα.

12. (*a*) Write down the *Gen. Sing.* and the *Dat. Plu.* of:—ὄρνις, κύων, κέρας, σάλπιγξ. (*b*) Decline γέλως. (*c*) Write down the Positive and Superlative of:—ἀμείνων, θᾶττον, μᾶλλον, πρότερον. (*d*) Parse, pointing out the root of each:—ἐσκεμμένος, ἐγνωκοτας, ἀφεῖναι, ὑπηργμέναι, φήσαι, ηὐξήθη, προῃρη-αι, συμβῇ, κομιεῖσθε.

CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS.

LATIN.

FRIDAY, SEPTEMBER 15TH :—MORNING, 9 TO 12.

Examiner,..... A. JUDSON EATON, PH.D.

I. Translate with short notes on the references and grammatical peculiarities :—

(*a*) Quinque dies tibi pollicitus me rure futurum,
Sextilem totum mendax desideror. Atqui
si me vivere vis recteque videre valentem,
quam mihi das aegro, dabis aegrotare timenti,
Maecenas, veniam, dum ficus prima calorque
designatorem decorat lictoribus atris,
dum pueris omnis pater et matercula pallet,
officiosaque sedulitas et opella forensis
adducit febres et testamenta resignat.
HORACE Ep. Bk. I.

(*b*) Humida solstitia atque hiemes orate serenas,
agricolae ; hiberno laetissima pulvere farra,
laetus ager ; nullo tantum se Mysia cultu
iactat, et ipsa suas mirantur Gargara messis.
Quid dicam, iacto qui semine comminus arva
insequitur cumulosque ruit male pinguis arenae ?
Deinde satis fluvium inducit rivosque sequentis,
et, cum exustus ager morientibus aestuat herbis,
ecce supercilio clivosi tramitis undam
elicit ? illa cadens raucum per levia murmur
saxa ciet, scatebrisque arentia temperat arva.
VIRGIL GEORGICS, Bk. I.

(*c*) Verum enimvero, pro deum atque hominum fidem, victoria in manu nobis est, viget aetas, animus valet : contra illis annis atque divitiis omnia consenuerunt. Tantum modo incepto opus est, cetera res expediet. Etenim quis mortalium, cui virile ingenium est, tolerare potest, illis divitias superare, quas profundant in extrudendo mari et montibus coaequandis, nobis rem familiarem etiam ad necessaria deesse? illos binas aut amplius domos continuare, nobis larem familiarem nusquam ullum esse? Cum tabulas signa toreumata emunt, nova diruunt alia aedificant, postremo omnibus modis pecuniam trahunt vexant, tamen summa lubidine divitias suas vincere nequeunt. At nobis est domi inopia, foris aes alienum : mala res, spes multo asperior : denique, quid relicui habemus praeter miseram animam ?

Quin igitur expergiscimini. En illa, illa quam saepe optastis libertas, praeterea divitiae decus gloria in oculis sita sunt: fortuna omnia ea victoribus praemia posuit. Res tempus, pericula egestas, belli spolia magnifica magis quam oratio mea vos hortantur. Vel imperatore vel milite me utimini: neque animus, neque corpus a vobis aberit. Haec ipsa, ut spero, vobiscum una consul agam, nisi forte me animus fallit et vos servire magis quam imperare parati estis."

SALLUST, CATILINE.

II. Translate :—

(*a*) Omnis enim ferme via praeceps, augusta, lubrica erat, ut neque sustinere se a lapsu possent, nec, qui paulum titubassent, haerere adfixi vestigio suo, aliique super alios et iumenta in homines occiderent.

(*b*) Id cum inter omnes constet, eo magis miror ambigi, quanam Alpis transierit et vulgo credere Poenino—atque inde nomen ei iugo Alpium inditum—transgressum, Coelium per Cremonis iugum dicere transisse; qui ambo saltus eum non in Taurinos, sed per Salassos montanos ad Libuos Gallos deduxissent.

(*c*) Nec diu in pacto mansit: nam subinde ab Carthagine adlatum est, ut Hasdrubal primo quoque tempore in Italiam exercitum duceret, quae volgata res per Hispaniam omnium ferme animos ad Romanos avertit. itaque Hasdrubal extemplo litteras Carthaginem mittit indicans, quanto fama profectionis suae damno fuisset; si vero inde pergeret priusquam Hiberum transiret, Romanorum Hispaniam fore: nam praeterquam quod nec praesidium nec ducem haberet, quem relinquere pro se, eos imperatores esse Romanos, quibus vix aequis viribus resisti possit: itaque si ulla Hispaniae cura esset, successorem sibi cum valido exercitu mitterent, cui *ut* omnia prospere evenirent, non tamen otiosam provinciam fore: —LIVY, BKS. XXI-XXIII.

III. (*a*) Why is *titubassent* (Ext. *a*) in the subjunctive mood? (*b*) Who was Coelius? By what pass is it probable that Hannibal crossed the Alps? (*c*) In the last passage—(Ext. *c*.) convert in Latin the indirect speech into direct; and the direct of I. (*c*) from *Quin igitur expergiscimini* to the end, into indirect.

IV. Write short notes on :—

(*a*) Sosiorum pumice mundus.

(*b*) dente Theonino.

(*c*) Romanas acies iterum videre Philippi.

(*d*) emenso cum iam decedit Olympo.

(*e*) pecuniarum repetundarum reus.

(*f*) Drusus erat de praevaricatione a tribunis aerariis absolutus.

(*g*) Comitia Bibulus in ante diem XV. Kal. Novembr. distulit. (What date, by our mode of reckoning? Remark on the expression).

V. Translate:—

CICERO ATTICO SAL.

Scr. Brundisii pridie Kalendas Maias a. u. c. 696.

Brundisium veni a. d. XIIII. Kal. Maias: eo die pueri tui mihi a te litteras reddiderunt, et alii pueri post diem tertium eius diei alias litteras attulerunt. Quod me rogas et hortaris, ut apud te in Epiro sim, voluntas tua mihi valde grata est et minime nova. Esset consilium mihi quidem optatum, si liceret ibi omne tempus consumere—odi enim celebritatem, fugio homines, lucem aspicere vix possum—esset mihi ista solitudo, praesertim tam familiari in loco, non amara; sed itineris causa ut devorterer, primum est devium, deinde ab Autronio et ceteris quadridui, deinde sine te; nam castellum munitum habitanti mihi prodesset, transeunti non est necessarium. Quod si auderem, Athenas peterem; sane ita cadebat, ut vellem: nunc et nostri hostes ibi sunt et te non habemus et veremur ne interpretentur illud quoque oppidum ab Italia non satis abesse, nec scribis, quam ad diem te exspectemus.

CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS.

GREEK AND LATIN PROSE COMPOSITION.

Thursday, September 14th:—Afternoon, 2 to 5.

Examiner,..... ....Rev. George Cornish, LL.D.

(A) Translate into Greek:—

1. If the children obey their elders it will be a good thing for the State, for disobedience is the source of many evils.

2. Parents should be careful to have their children taught truthfulness, self-restraint and reverence for all good men and things.

3. So ambitious was he that he was ready to do and to bear anything, to be thought well of by his fellow-citizens.

4. It is the part of a wise man to gain the mastery over mere pleasure and desire, and thus to be an example of temperance to others.

5. The general said to his soldiers:—"If we are defeated in the battle we shall fall into the hands of the enemy and shall then suffer a most grievous fate."

6. He said that men should live according to reason, which is very different from living according to passion.

(B) Translate into Latin:—

Whilst the Senonian Gauls were besieging Clusium, a town of Etruria, three ambassadors were sent from Rome to warn the Gauls to desist from the siege. One of these, contrary to the law of nations, went forth to battle, and slew a chief of the Senones. Exasperated at this, the Gauls, after having in vain demanded the surrender of the ambassadors, set out for Rome, and overthrew the Roman army at the river Allia. They entered the city as conquerors, where at first they reverenced, as though they were gods, the most noble of the old men, who were sitting in their curule chairs, and clothed with their insignia of magistrates; afterwards, when they perceived them to be but men, they put them to death. The rest of the youth fled with Manlius into the Capitol, were they were besieged, but liberated by the valour of Camillus, who, being appointed Dictator in his absence, collected the citizens that still remained, and overpowered the Gauls by an unexpected attack.

CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS.

ANCIENT HISTORY.

FRIDAY, SEPTEMBER 15TH:—AFTERNOON, 2 TO 5.

Examiner, ...REV. GEORGE CORNISH, M.A., LL.D.

1. Write a general account of the Hellenic people in the early historical period, noting the four ties which held them together.

2. Explain the geographical distribution of the Æolians, Dorians and Ionians.

3. Mention the principal epochs of Greek colonisation, and the states most famous for their colonies.

4. What were the leading states of Greece at the time of the Persian War, and what part did they severally take? What important results followed this war?

5. (*a*) Trace briefly the growth of the leading Grecian States, naming those that in succession held the hegemony of Greece. (*b*) What events and causes led to the establishment and overthrow of the supremacy of Athens?

6. Set forth the nature and uses of *Ostracism*. What pleas could be urged in its defence.

7. When did Pyrrhus invade Italy, and under what pretext? In what part of Italy did he wage war with the Romans, and what was the result of the war?

8. Trace the most important political events and constitutional changes at Rome, with dates, from the period of the expulsion of the Kings down to the Punic wars.

9. When was the office of *Praetor* first instituted at Rome? What were the duties of the office, and how were they afterwards modified? Distinguish between the *Praetor Urbanus* and the *Praetor Peregrinus.*

10. Explain the origin and meaning of the phrases:—*Patres Conscripti; Populus Romanus; Quirites; Plebs.*

11. Give an account of the Law of Debt at Rome, and point out how its operation acquired political importance and led to political changes.

12. What were the real character and object of the *Leges Agrariae* at Rome? Define the terms *Ager publicus* and *Possessio.*

CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS.

ENGLISH LITERATURE.

MONDAY, SEPT. 18TH:—MORNING, 9 TO 12

Examiners, ... { CHAS. E. MOYSE, B.A.
P. T. LAFLEUR, M.A.
W. J. MESSENGER, B.A.

(N.B.—Write the answers to A and B on separate sets of papers.)

A. MILTON, *Paradise Lost, Books I and II.*

1. What, in the opinion of the best critics, are the specially poetic qualities of Milton's verse? In support of your propositions, quote from Paradise Lost.

2. Give some account of the origin and composition of Paradise Lost; also, of the circumstances and condition of the poet at the time of its appearances.

3. Point out, with the help of quotations from the poem, that Milton's writings shew: (*a*) his political sympathies, (*b*) his wide and accurate scholarship, (*c*) his knowledge of the continent of Europe, (*d*) his piety and reverence.

4. Make short notes on:—shield, ethereal temper, massy: Astarte, queen of Heaven: the Dorian mood of flutes and soft recorders; Atlantean shoulders: Alcides.....felt the envenomed robe.

5. Describe the building of the palace of Satan.

B.

SHAKSPERE: *Tempest.*

I. Describe the contemporary event which is supposed to have influenced Shakspere in the writing of this play, and examine the evidence in favour of the supposition.

II. Describe the songs of Ariel, and the connections in which they are introduced.

III. Give a careful account of the Storm in Act I, Sc. 1. Follow the orders given by the boatswain, and explain these fully.

IV. Explain: piece of virtue; the will above be done; to trash for overtopping; performed to point; come from thy ward; if 'twere a kibe; put it to the foil; where the quick freshes are; Dusky Dis; leave not a rack behind.

V. Summarize the events of the Third Act.

VI. Write on the character of Prospero, using quotations in illustration.

CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS.

ENGLISH LITERATURE.

SPALDING (CHAPTER 6 TO END); TRENCH:—*Study of Words.*

MONDAY, SEPT. 18TH:—AFTERNOON, 2 TO 5.

Examiners..... .... { CHAS. E. MOYSE, B.A. / W. J. MESSENGER, B.A.

(Write answers to A and B on separate sets of paper.)

A.

1. (*a*) Give the substance of Hallam's criticism of Shakspere.
(*b*) Criticise Ben. Jonson and Massinger as dramatists.

2. (*a*) Describe the Polyolbion; name the author.
(*b*) Name three eminent churchmen of the Restoration times, and briefly criticise their writings.

3. Give a brief description of Dryden's non-dramatic works, and the substance of Scott's criticism of Dryden.

4. Write on Thomson and Cowper.

5. Describe the character of the poetical Literature of the first half of the 19th Century, and give a criticism of Southey.

6. Notice the leading periodicals of the first half of the present century.

B.

1. (*a*) Comment on the words: apostle, tribulation, John of Gaunt, Mont de Pilate, calculation, cosmopolite, mutton, Wales.

(*b*) In proof of what are the words *savage* and *fancy* cited, and how?

2. What evidence does language give as to the condition of the Indo-European race before it separated into its various branches?

3. (*a*) How do synonyms arise?

(*b*) Give the Anglo-Saxon equivalent of manual, sentiment, homicide, and show by three examples that English has borrowed synonymous words from Latin and Greek.

4. Give five illustrations of:

(*a*) Names of ridicule derived from proper nouns
(*b*) Geographical names derived from geographical features.
(*c*) Poetry in the names of flowers.

5. Choose three features of language not referred to in the preceding questions, and having named each, write not less than half a page on it.

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CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS.

ENGLISH COMPOSITION.

TUESDAY, SEPT. 19TH:—AFTERNOON, 2 TO 5.

Examiners,..... { CHAS. E. MOYSE, B.A.
P. F. LAFLEUR, M.A.

1. With how many different constructions may the idea of *purpose* be rendered in English? State clearly and give an illustration of each.

2. Give some idea of any *Method* that may be employed for the description of scenery; and apply it to the description of any landscape or locality that you know.

3. What advantages [illegible] rather than of long sentences.

4. Write an essay of at least two pages on any [illegible] following subjects:—

A. Choosing a Profession.

B. Capital Punishment.

C. Memory.

CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS.

FRENCH.

Examiners, ... { P. J. Bailey, M.A., LL.D., Officier d'Académie. J. D. Morgan, M.A.

1. (*a*) Quel est le but de la comédie *Les Femmes savantes*? (*b*) Qu'est-ce qui a inspiré la pensée à l'auteur? (*c*) Décrivez le *dénoûment* de cette pièce.

2. Faites en connaître les auteurs suivants: Martine, Henriette, Bélise et Vadius.

3. Traduisez les expressions et l'extrait suivants de la même pièce:

(1) Se faire fête de.... (2) Se mettre en quatre. (3) Aller terre à terre. (4) Bien vous prend. (5) Ne faire que.... (6) C'est fort bien fait à vous. (7) Clouer de l'esprit à ses moindres propos. (8) Lui savoir bon gré de... (9) Voilà qui va des mieux. (10) Si j'étais que de vous.

4. Traduisez:—

Oui, vous avez raison; mais Monsieur Trissotin
M'inspire au fond de l'âme un dominant chagrin.
Je ne puis consentir pour gagner ses suffrages
A me déshonorer en prisant ses ouvrages;
C'est par eux qu'à mes yeux il a d'abord paru,
Et je le connaissais avant que l'avoir vu,
Je vis dans le fatras des écrits qu'il nous donne
Ce qu'étale en tous lieux sa pédante personne,
La constante hauteur de sa présomption,
Cette intrépité de bonne opinion,
Cet indolent état de confiance extrême
Qui le rend en tout temps si content de soi-même,
Qui fait qu'à son mérite incessamment il rit,

Qu'il se sait si bon gré à de tout ce qu'il écrit,
Et qu'il ne voudrait pas changer sa renommée
Contre tous les honneurs d'un général d'armée.

5. Faites une courte analyse de Britannicus. Quel est le sujet de cette pièce? Quand parut-elle?

6. Quels droits Britannicus et Néron avaient-ils chacun au trône? Racontez comment Néron supplanta Britannicus.

7. Donnez un court résumé de la vie de Racine et de Molière, et indiquez leurs principaux ouvrages.

8. Indiquez l'origine du théâtre en France, et mentionnez quels en sont les principaux représentants au 16e siècle, au 18e siècle et au 19e siècle.

9. Indiquez *cinq* cas où l'on fait usage du mode subjonctif en français Donnez des exemples.

10. Quelles sont les règles qui déterminent les différents temps de ce mode?

11. Traduisez:—

"I have indeed lived fifteen years in solitude," said the hermit, "but have no desire that my example should gain any imitators. In my youth I professed arms, and was raised by degrees to the highest military rank I have traversed wide countries at the head of my troops, and seen many battles and sieges. At last, being disgusted by the preferments of a younger officer, and feeling that my vigour was beginning to decay, I resolved to close my life in peace, having found the world full of snares, discord and misery. I had once escaped from the pursuit of the enemy by the shelter of this cavern, and therefore chose it for my final residence.

"For some time after my retreat I rejoiced like a tempest-beaten sailor at his entrance into the harbour, being delighted with the sudden change of the noise and hurry of war to stillness and repose."

Rasselas, JOHNSON.

CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS.

GERMAN.

Examiner..... ..... L. R. GREGOR, B.A.

SEPTEMBER 19TH:—9 TO 12, A.M.

1. Translate into English:—

(*a*) Herr von Lormeuil ist ganz verblüfft über die sonderbare *Aufnahme*, und ich will suchen, die Entwickelung, *die* nicht mehr

lange *ausstehen kann*, so lang als möglich zu verzögern, dasz ich [illegible] gewinne, als Onkel [illegible] Vorschlag [illegible] Gunsten, oder, wenn nicht anders ist, den Lormeuil in mich verliebt zu machen—denn ehe ich *zugebe*, dasz er die Cousine heiratet, *nehme* ich ihn lieber selbst.

(*b*) Während dasz dieser *Process betrieben wurde, verhielten sich* die Verwandten und Freunde der beiden *Grafen* nicht müszig. Alle protestirten laut gegen dieses gesetzwidrige Verfahren, und *wollten* die deutsche Reichs-freiheit, *worauf* der Graf von Hoorn, als Reichs-graf, noch besondern *Anspruch* machte, die niederländische Freiheit, und die Privilegien des Ordens vom goldenen Vliesze dagegen geltend machen.

(*c*) Schon winkt auf hohem Bergesrücken
Akrokorinth des Wanderers *Blicken*,
Und in Poseidons *Fichtenhain*
Tritt er mit frommem Schauder ein.
Nichts regt sich um ihn her; nur Schwärme
Von Kranichen begleiten ihn,
Die fernhin nach des Südens Wärme
In graulichtem Geschwader *ziehen*.

2. Parse carefully the words italicised in the preceding passages.

3. In what situations do you use the demonstr. pro. *derjenige?*

4. Distinguish between:—*alle Menschen* and *alle die Menschen*: between *Er ist nicht einmál hier gewesen* and *Er ist nicht einmál hier gewesen.*

5. Translate into German:—

Three by three. The third part. Charles the Third. On the third of June. This is the third of May.

6. State in general terms how—(1) participles, (2) adjectives used as substantives, are declined.

7. Conjugate *werden* in all moods and tenses, giving the English of the first person of each tense.

8. *Wir lieben uns.* Comment on the ambiguity involved in this sentence. What changes or additions will remove it?

9. Give a practical rule for the translation of *of* with a substantive into German.

10. Distinguish between *wenn*, *wann* and *als*. Give sentences in illustration.

11. Decline the interrog. pronoun *welcher*.

12. Decline in the singular :— Das liebenswürdigste Kind eine eigenhändige Kopie, grünes Gras.

13. Write a composition in German of not less than one hundred and fifty words on one of the following subjects :—Shakspeare, England, Books.

14. Translate into German :—

To-day we are learning German, to-morrow we shall learn Latin. I should take a walk with you, if I had time. Our parents travelled in Germany and in Switzerland. The students became tired because they had studied too much. We learn in this book the names of the gods of the Romans. The girl hangs the bird-cage before the window in the sun. I should have bought the book you showed me yesterday, if I had had time. I have something important to say to you. The soldier had been wounded by a ball. The industrious countryman cut the grass yesterday and is making hay to-day. Please, dear mother, tell us little children something new and pretty. When is the weather coldest in Canada? How should we escape if the boat sank? When the children had drunk, the cat drank the milk that remained over. This youth has read all the books in his father's library, but unfortunately he forgets just as fast as he reads.

MATHEMATICAL SCHOLARSHIP.

ANALYTICAL GEOMETRY (*First paper*).

THURSDAY, SEPTEMBER 14TH :—MORNING, 9 TO 12.

Examiner,..... ALEXANDER JOHNSON, LL.D.

1. Defining a conic section as the locus of a point whose distances from a given point and a given line are in any given ratio ; find thence : 1° the general equation ; 2° the equations of the ellipse, parabola and hyperbola in their simplest forms.

2. From the equation of the ellipse obtained in previous question, show by transformation of co-ordinates that there are an infinite number of pairs

3. Prove that if the general equation of the second degree be transformed from one set of rectangular axes to another, its quantities $a+b$ and $ab-h^2$ will remain unchanged.

4. In the hyperbola find the equation referred to the axes of the diameter conjugate to that passing through any point $x'y'$ on the curve.

5. Diameters parallel to any pair of supplemental chords of an ellipse are constant. Prove this, and hence how to draw geometrically a pair of conjugate diameters making any angle with each other.

6. Find the co-ordinates of the intersection of the normals to an ellipse at any two points $x'y'$, $x''y''$.

7. The sum of the reciprocals of two focal chords of an ellipse at right angles to each other is constant.

8. The triangle which any tangent to an hyperbola forms with the asymptotes has a constant area, and is equal to double the area of the parallelogram formed by the co-ordinates.

9. Any tangent to a parabola makes equal angles with the axis and with the focal radius vector.

10. Given the base and vertical angle of a triangle, show that the locus of the vertex is a circle passing through the extremities of the base, and find its radius.

11. Given the bases and sum of areas of any number of triangles having a common vertex, find its locus.

12. Find the equation of the line joining the origin to the intersection of

$$Ax + By + C = 0, \text{ and } A'x + B'y + C' = 0.$$

13. Find the equation, referred to *oblique* co-ordinates, of the perpendicular from $x'y'$ on $Ax + By + C = 0$.

MATHEMATICAL SCHOLARSHIP.

ANALYTICAL GEOMETRY (*Second Paper*).

FRIDAY, SEPTEMBER 15TH:—MORNING, 9 TO 12.

Examiner,..... .... ALEX. JOHNSON, LL.D

1. If three conics have each double contact with a fourth, six of their chords of intersection will pass three by three through the same points.

2. If in the equation of any conic the co-ordinates of any point be substituted, the result will be proportional to the rectangle under the segments of a chord drawn through the point parallel to a given line.

3. The anharmonic ratio of a pencil, whose sides pass through four fixed points of a conic, and whose vertex is any variable point on it, is constant.

4. Two equal and similarly placed parabolas whose axes are coincident may be considered as having with each other a contact of the third order at infinity.

5. Using the eccentric angle ϕ, show that the lengths of two conjugate semi-diameters of an ellipse may be expressed as

$$a^2 \cos^2\phi + b^2 \sin^2\phi \quad \text{and} \quad a^2 \sin^2\phi + b^2 \cos^2\phi.$$

6. If θ be the angle between the tangents to an ellipse from any point, and if l, l' be the distances of that point from the foci, prove that

$$\cos\theta = \frac{l^2 + l'^2 - 4a^2}{2ll'}.$$

7. If the general equation of the second degree represents a parabola, show that it is possible by transformation of co-ordinates to refer it to rectangular axes, so that the equation shall be of the form $y^2 = px$.

8. Show that the equation in trilinear co-ordinates $\alpha\beta - \gamma^2 = 0$ will represent a circle if the angle $A = B$.

9. Use trilinear co-ordinates to determine when the locus of a point will be a circle if the product of perpendiculars from it on two opposite sides of a quadrilateral be in a given ratio to the product of perpendiculars from it on the other two sides.

10. Show that a homogeneous equation of the n^{th} degree in x and y denotes n right lines passing through the origin.

11. Find the condition that two lines $l\alpha + m\beta + n\gamma$, $l'\alpha + m'\beta + n'\gamma$ may be perpendicular to one another.

12. Express the area of a polygon in terms of the co-ordinates of its angular points.

MATHEMATICAL SCHOLARSHIP

ALGEBRA—TRIGONOMETRY

WEDNESDAY, SEPTEMBER 20TH:—9 TO 12 A.M.

[illegible] ... ALEXANDER JOHNSON, LL.D.

1. The equation $x^3 - 4x^2 - 7x + 24 = 0$ has a root between 2 and 3; calculate it by Newton's method.

2. Solve the following equation which has equal roots:

$$x^4 - 11x^2 + 18x - 8 = 0$$

3. Transform the equation $x^3 + px^2 + qx + r = 0$ into another, the roots of which shall be the squares of the differences of the roots of the given equation.

4. Solve the equation $2x^6 + x^5 - 13x^4 + 13x^2 - x - 2 = 0$.

5. Find the sum of the cubes of the roots of the equation

$$[illegible] + [illegible] - 6 = 0.$$

6. The roots of the equation $x^3 - 6x^2 + 11x - 6 = 0$ are in Arithmetical Progression; find them.

7. Prove that the product of the squares of the differences of the roots of an equation may be exhibited as a determinant.

8. If two rows or two columns of a determinant are identical, the determinant vanishes.

9. In a spherical triangle $\cot. A \sin. C = \cot. a \sin. b - \cos. b \cos. C$.

10. In a spherical triangle

$$\frac{\sin.^2 A}{\sin.^2 a} = \frac{1 - \cos.^2 a - \cos.^2 b - \cos.^2 c + 2\cos. a \cos. b \cos. c}{\sin.^2 a . \sin.^2 b \sin.^2 c}$$

11. If m be even, prove that

$$2^m \cos.^m \theta = 2\cos. m\theta + 2m\cos.(m-2)\theta + \frac{2m(m-1)}{1.2}\cos.(m-4)\theta$$

$$+ \text{\&c. to } \tfrac{1}{2}m \text{ terms} + \frac{1.3.5. \text{ \&c. } (m-1)}{1.2.3. \text{ \&c. } \frac{1}{2}m} 2^{\frac{1}{2}m}$$

12. Prove Demoivre's Theorem, when the index is fractional or negative.

13. Investigate a formula for the approximate logarithms of numbers consisting of more places of figures than those in the tables; and deduce from it the ordinary rule.

14. The sum of the angles of a spherical triangle lies between two and six right angles.

ANNE MOLSON MATHEMATICAL PRIZE.

GEOMETRY OF THREE DIMENSIONS.

FRIDAY, SEPTEMBER 15TH:—MORNING, 9 TO 12.

Examiner,..... ALEXANDER JOHNSON, LL.D.

1. If two finite non-intersecting lines be divided each into the same number of equal parts, the lines joining corresponding points will be generators of an hyperbolic paraboloid.

2. Find the equations of the planes of circular section of the ellipsoid.

3. The sum of the squares of a system of three conjugate semi-diameters of an ellipsoid is constant.

4. Prove that a quadric has in general three diametral planes.

5. Find the condition that the general equation of the second degree should represent a cone.

6. Find the conditions that a line $x = mz + a$, $y = nz + b$, should be altogether in a plane $Ax + By + Cz + D = 0$.

7. Find the equations of the perpendicular from $x'\ y'\ z'$ on the plane $Ax + By + Cz + D = 0$.

8. Find the direction cosines of

$$\frac{x'}{l} \quad \frac{y'}{m} \quad 0$$

9. Find the angle between any two given planes.

10. Show that the equation of the tangent plane to any surface $U = 0$ at the point $x'y'z'$ is

$$(x - x')\ U_1' + (y - y')\ U_2' + (z - z')\ U_3' = 0$$

ANNE MOLSON MATHEMATICAL FIELD.

CALCULUS.

TUESDAY, SEPTEMBER 20TH:—MORNING, 9 TO 12.

Examiner..... .....ALEXANDER JOHNSON, LL.D.

1. Define "Moment of Inertia." Find it for a right cone with regard to its axis.

2. A sphere of 15 feet radius is cut by two parallel planes at distances of 3 and 7 feet from its centre: find the superficial area of the portion of the surface included between the planes.

[illegible] plane is $\frac{1}{4}$ths of that of the circumscribing cone standing on the section made by the plane as base.

4. Prove that the area of the oval of the parabola of the third degree with a double point

$$ay^2 = (x - a)\ (x - b)^2$$

is

5. Find the value of $\int_0^a \frac{dx}{a^2 + x^2}$

6. Change the independent variable from x to θ in the expression $\frac{d^2y}{dx^2}$ supposing $x = \sin \theta$

7. Eliminate the arbitrary function from

$$\frac{1}{z} - \frac{1}{x} = \varphi\ (\frac{1}{y} - \frac{1}{x})$$

8. Find the equations of the cycloid referred to its vertex, and show that the length of an arc is given by the equation $s^2 = 8\ ay$.

9. Find the envelope of given length (a) whose extremities move along two fixed rectangular axes.

10. Find the volume of a given ellipsoid.

ANNE MOLSON MATHEMATICAL PRIZE.

ASTRONOMY AND OPTICS.

WEDNESDAY, SEPTEMBER 26TH:—MORNING, 9 TO 12.

[redacted] LL.D.

1. Given the annual parallax of a star, investigate a formula for determining its parallax in longitude at a given time.

2. If ϕ and ϕ' be the geographical and geocentric latitudes respectively of a place, and c the *compression*, prove

$$\phi - \phi' = c \sin 2\phi$$

3. Show how to determine the coefficient of refraction from observations on a circumpolar star.

4. Investigate the general differential equation of refraction.

5. Explain fully why the twilight is shorter in the latitude of Montreal than in Scotland. (a) Find the time of year when the twilight is shortest at a given place.

6. Prove that the equation of time vanishes four times a year.

7. Find the latitude of a place, when two altitudes of the sun and the interval of time between the observations are given.

8. Find the R. A. and Decl. of the Sun when his longitude was 59° 33′ 42″.5 and the obliquity of the ecliptic was 23° 27′ 29.″06.

9. Investigate the condition for minimum deviation of a ray of light passing through a prism.

10. Explain the method of measuring the minimum deviation of a ray corresponding to one of the fixed lines in the spectrum, and of thence determining its index of refraction.

11. Calculate the position and dimensions of the least circle of aberration after direct refraction at a spherical surface.

SCIENCE SCHOLARSHIPS.

CHEMISTRY.

MONDAY, SEPTEMBER 18TH:—AFTERNOON, 2 to 5.

Examiner,..... J. HARRINGTON, B.A., PH.D.

1. What volume of Nitrous Oxide at 20° C. and 750 m.m. can be obtained from 100 grams of Ammonium Nitrate?

2. How may the relative proportions of Oxygen and Nitrogen in the atmosphere be determined?

3. In what way are metallic salts formed?

4. What do you understand by the natural arrangement of the elements?

5. Into what classes are Oxides divided? Give examples of each class.

6. Give the names and formulæ of the Oxides of Manganese, and describe briefly the preparation of Potassium Manganate and Permanganate.

7. Describe the estimation of Carbon, Hydrogen and Nitrogen in an organic body.

8. Give briefly the preparation and properties of (*a*) Ether, (*b*) Acetic Acid, (*c*) Glycol, (*d*) Glycerol.

9. What are Carbohydrates? How are they classified? Give the chemical properties of one member of each group.

10. The Silver salt of a monobasic acid gave on analysis 53.6 per cent. of Silver. Deduce the molecular weight of the acid.

SCIENCE SCHOLARSHIPS.

BOTANY.

(FIRST PAPER.)

FRIDAY, SEPTEMBER 15th, 1893:—MORNING, 9 to 12.

Examiner,..... D. P. PENHALLOW, B.Sc.

1. Give a concise account of the nutrient fluids of plants with respect to (*a*) the mechanism of absorption, (*b*) the directions of transfer, (*c*) the tissues traversed, and (*d*) their relation to nutrition.

2. Explain the principal forms of distribution in the root systems of plants, and show what offices they fill.

3. Outline the life history of a Pteridophyte.

4. Show the application of the terms hetero-sperous and homosperous with respect to the Pteridophytes and Spermaphytes.

5. Give an account of the structure of the leaf in Spermaphytes, and show (*a*) what functions this organ performs, and (*b*) its principal adaptations to modified function.

6. The Apple, Squash, Corn, Peach, Strawberry.

Classify these fruits, and show (*a*) the conditions of adnation represented, (*b*) the parts of the original pistil represented, (*c*) the principal directions in which the original structures have been modified in development.

7. Indicate the principal methods by which pollen may be transferred, and show what provisions are made for the purpose of securing continual vigor and perpetuation of the species.

8. Give two examples of reversion, and show what is indicated by such alterations of organs.

9. Give a concise account of the growth rings of an exogen with respect to (*a*) their cause and (*b*) their relation to age.

10. Explain what classification is designed to represent.

Point out any errors you may be aware of in the classification given by Gray, and show reason for changes you suggest.

SCIENCE SCHOLARSHIPS.

BOTANY.

(SECOND PAPER.)

FRIDAY, SEPTEMBER 15TH:—AFTERNOON, 2 TO 5.

Examiner, ... D. P. PENHALLOW, B.Sc.

1. Outline the characteristics of the two groups, Bryophyta and Pteridophyta.

2. Explain, in detail, the nature of the fructification in Filices. Show what characters serve to separate Aspidium, Asplenium, Adiantum and Pteris.

[illegible] and [illegible] the distribution and economic importance of this family.

4. Enumerate, as far as you can, the trees of economic value found in the vicinity of Montreal.

5. Outline the characteristics of the Ericaceæ, and show the distribution of the family. Give the name and use of any member of this family in Canada which is of economic value.

6. Give the names of twenty Canadian trees of economic importance, and show to what uses they are chiefly put.

7. Give the names and uses of twelve herbaceous or shrubby plants of Canada of economic value.

8. Give the characteristics of the [illegible] species may be found about Montreal.

Examination of plants, Tuesday, Sept. 19th, 9 to 12 a.m.

FACULTY OF APPLIED SCIENCE.

ENTRANCE EXAMINATIONS,

1893.

FACULTY OF APPLIED SCIENCE.

MATRICULATION EXAMINATION.

MATHEMATICS (*First Paper*).

FRIDAY, SEPTEMBER 15TH :—MORNING, 9 TO 12.

Examiners,..... .... { G. H. CHANDLER, M.A
R. S. LEA, M.A.Sc.

(Arithmetic.)

1. Express a yard as a decimal of a metre, and a square yard as a decimal of a square metre.

2. What principal will, at 5 per cent. simple interest, amount to $1280 in 5 years ?

3. Assuming that the area of a circle is half the product of the lengths of the circumference and radius, find in feet the diameter of a circular field containing one acre.

4. A mixture is made of 20 gallons of syrup worth 60 cents per gallon, 36 gallons worth 75 cents per gallon, and a certain quantity of water ; a profit of 10 per cent. is made by selling the mixture at 65 cents per gallon ; how much water was added ?

(Algebra.)

5. Find the factors of

(1) $x^2 - x - 240$,

(2) $4x^2 + x - 14$,

(3) $4(x-y)^3 - (x-y)$,

(4) $x^3 y^3 - 512$.

6. Simplify $\left(\frac{2}{x} - \frac{1}{a+x} + \frac{1}{a-x}\right) \div \left(\frac{a+x}{a-x} - \frac{a-x}{a+x}\right)$,

and show that

$$\frac{a^3}{(a-b)(a-c)} + \frac{b^3}{(b-c)(b-a)} + \frac{c^3}{(c-a)(c-b)} = a + b + c.$$

7. Show that

(1) $(2-\sqrt{3})(7-4\sqrt{3}) \div (3\sqrt{3}-5) = \frac{3\sqrt{3}-5}{2}$,

(2) $3\sqrt{8} \times 2\sqrt[3]{6} \times 3\sqrt[4]{54} = 216\sqrt[12]{6}$.

8. Solve the equations:

(1) $(x+a)^4 - (x-a)^4 + 8a^4 = 8ax^3$,

(2) $12x^2 - 11ax = 36a^2$,

(3) $\sqrt{3x-11} + \sqrt{3x} = \sqrt{12x-23}$,

(4) $\begin{cases} x^3 + y^3 = 126 \\ x^2 - xy + y^2 = 21 \end{cases}$

9. If $(x+a)^2 + (x+b)^2 = 2(x+a)(x+b)$, show that $a = b$.

10. If $(x+a)^3 + (x+b)^3 + (x+c)^3 = 3(x+a)(x+b)(x+c)$, show that $x = -\frac{1}{3}(a+b+c)$.

N. B.—It is necessary to pass in each subject. All the work must be shown; answers alone will not be accepted.

MATRICULATION EXAMINATION.

MATHEMATICS (*Second Paper*).

FRIDAY, SEPTEMBER 15TH :—AFTERNOON, 2 to 5.

Examiners,..... G. H. CHANDLER, M.A. / R. S. LEA, M.A.Sc.

(GEOMETRY.)

1. If a side of a triangle be produced, the exterior angle is equal to the sum of the two interior opposite angles, and the sum of three interior angles is equal to two right angles.

(*a*) Show how a right angle may be divided into three equal parts.

2. On a given straight line to describe a square.

(*a*) Describe a square which shall have a given line for diagonal.

3. To divide a straight line into two parts, so that the rectangle contained by the whole line and one of the parts may be equal to the square on the other part.

(*a*) If the given line be AB and the point of section H, prove that $AH.HB = AH^2 - BH^2$.

4. Prove that the straight line which bisects any chord of a circle perpendicularly passes through the centre of the circle.

5. The opposite angles of a quadrilateral inscribed in a circle are together equal to two right angles.

(*a*) Divide a circle into two segments, so that the angle in one of them may be three times that in the other.

(TRIGONOMETRY.)

6. What unit angles are employed in Trigonometry? Find the number of degrees in an angle which is at the centre of a circle and is subtended by an arc equal to the radius.

7. Give the signs of the following: (1) sin 100°, (2) cos 200°, (3) tan 300°, (4) cot 400°, (5) sec 500°, (6) cosec 600°.

8. Find the trigonometrical functions of 90° — A and of 90° + A in terms of those of A.

9. Prove the following:—

(1) $\cos(A+B) = \cos A \cos B - \sin A \sin B$.

(2) $\cos 2A = 2\cos^2 A - 1 = 1 - 2\sin^2 A$.

(3) $\sin A = \dfrac{2\tan \frac{1}{2}A}{1+\tan^2 \frac{1}{2}A}$

(4) $\sin 80° - \sin 20° = \sin 40°$.

(5) $\tan^2 A \sec^2 A - \sec^2 A + 1 = \tan^4 A$.

PRIZE IN APPLIED SCIENCE.

FIRST YEAR.

FRENCH.

SEPTEMBER 19TH, 1893.

Examiners, ... { P. J. DAREY, LL.D. / REV. J. L. MORIN, M.A.

1. Write in the plural *sou, chou, bal, œil, ciel.* Give the rules.

2. Write the plural of *ce,* demonstrative adjective, and demonstrative pronoun.

3. Where do you place the pronouns governed by the verb as direct and indirect objects? In what order? Translate as examples: *He gives it to thee*, and *He gives it to him.*

4. How do you translate: *He, she, they,* when followed by *who, whom?* Give two examples.

5. Distinguish between a *direct* and *indirect object.* Give two examples.

6. Interrogatively the verb *to have* in the *Preterite indefinite*, the *Past anterior*, *Future anterior.*

7. Write in full the *Preterite definite, the Present and the Past Subjunctive* of three of the following verbs: *aller, naître, venir, me pas se lever, y avoir, acquérir, cueillir, absoudre.*

8. *Translate into French :* We grind our coffee ourselves. We are born in this world to prepare ourselves for a better one. I do not think she likes that little town. We resolved to go by the steamboat. They live on vegetables and milk food. There are ladies who know how to laugh, but who do not know how to smile. *And into English :* Les poulets éclôront la semaine prochaine. Ne déplaisons pas par des airs de hauteur. Il vit de peu. Il est nécessaire de traire les vaches deux fois par jour. Ces arbres ont beaucoup crû cet été.

9. *To the foregoing questions the candidates for the exhibition in Arts and the Garth prize in Science will please add the following questions.* What mistake is there in the sentence : *Ce fils est utile et chéri de sa famille.* Correct it.

Answer the same question for the sentence : *il me s'adressa.*

When two or more words form the subject of a verb, how do you write that verb, and in what person? Give two examples.

10 When do you translate the *English Pluperfect* by the *Past anterior* and when by the *Pluperfect* in French? Give two examples.

11. Translate into French :

Modesty is a very good quality, and which generally accompanies true merit : it engages and captivates the minds of the people ; as, on the other hand, nothing is more shocking and disgustful than presumption and impudence. We cannot like a man who is always commending and speaking well of himself, and who is the hero of his own story.

CHESTERFIELD.

SECOND YEAR EXHIBITION.

MATHEMATICS.

FRIDAY, SEPTEMBER 15TH :—MORNING, 9 TO 12.

Examiners, ... G. H. CHANDLER, M.A.

1. In a given circle to inscribe a regular pentagon.

2. Divide a given straight line both internally and externally so that the rectangle contained by its segments may be equal to a given area.

3. Prove that the volume of a pyramid is one third of the base by the altitude.

4. A line drawn parallel to the axis of a parabola and terminated by the curve bisects all chords parallel to the tangent at its extremity.

5. If $\dfrac{(x+a)(x+b)}{x+a+b} = \dfrac{(x+c)(x+d)}{x+c+d}$,

show that $x = \dfrac{cd(a+b) - ab(c+d)}{ab - cd}$.

6. Solve the equations:

(1) $\dfrac{x-8}{x-10}+\dfrac{x-4}{x-6}=\dfrac{x-5}{x-7}+\dfrac{x-7}{x-9}$,

(2) $x^6+7x^3=8$.

(3) $\sin 5x+\sin 3x=\cos x$,

(4) $\tan^{-1}x^2+\tan^{-1}x=\tan^{-1}\frac{1}{3}$.

7. Show that

(1) $\dfrac{\sec^2(45^\circ+\theta)}{\tan(45^\circ+\theta)}=2\sec 2\theta$,

(2) $\sin\theta=\dfrac{2\tan\frac{1}{2}\theta}{1+\tan^2\frac{1}{2}\theta}$,

(3) $\operatorname{cosec}2\theta+\cot 2\theta=\cot\theta$,

(4) $\tan^{-1}\frac{1}{2}+\tan^{-1}\frac{1}{5}+\tan^{-1}\frac{1}{8}=\frac{\pi}{4}$.

8. In any plane triangle

(1) $\cos 2A+\cos 2B+\cos 2C+4\cos A\cos B\cos C+1=0$,

(2) $\tan\dfrac{A-B}{2}=\dfrac{a-b}{a+b}\cot\dfrac{C}{2}$.

9. In any spherical triangle

$$\tan\frac{A-B}{2}=\frac{\sin\frac{a-b}{2}}{\sin\frac{a+b}{2}}\cot\frac{C}{2}.$$

SUPPLEMENTAL EXAMINATION.

SECOND YEAR.

ENGLISH COMPOSITION.

MONDAY, SEPT. 18TH:—9 TO 12 A.M.

1. Make corrections in the following, and give your reasons in each case:

(*a*) Good orthography is as necessary as good caligraphy.

(*b*) A capacious rent had been made in a part of his costume.

(*c*) Practical joking does not deserve condign punishment the less because it often succeeds in escaping it.

(*d*) There have been three famous talkers in England, either of whom would illustrate what I say about dogmatists well enough for my purpose.

(*e*) It also looks to the final elimination of the soul from the body.

2. Distinguish between the following pairs of words :— detect and distinguish; credible and credulous; perspicuity and perspicacity; converse and reverse; verbal and oral; presumptive and presumptuous.

3. Write an essay of not less than two pages on *one* of the following subjects :—

(*a*) Climate.
(*b*) History.
(*c*) Pleasure.

GARTH PRIZES.

(The paper on Macaulay in the same as that set for the Scott Exhibition. The paper on the Tempest is the same as that set for the Third Year Scholarships in Arts.)

SCOTT EXHIBITION

AND SECOND YEAR SUPPLEMENTAL.

FRENCH.

Examiners, ... { P. J. Darey, LL.D. / Rev. L. J. Morin, M.A.

1. Traduisez en français :—

Aman. L'insolent devant moi ne se courba jamais.
En vain de la faveur du plus grand des monarques
Tout révère à genoux les glorieuses marques;
Lorsque d'un saint respect tous les Persans touchés
N'osent lever leurs fronts à la terre attachés,
Lui, (*a*) fièrement assis, (*b*) et la tête immobile,
Traite tous ces honneurs d'impiété servile.
Présente à mes regards un front séditieux,
Et ne daignerait pas au moins baisser les yeux !
Du palais cependant il assiège la porte :
A quelque (*c*) heure que j'entre (*d*) Hydaspe, ou que je sorte (*e*)
Son visage odieux m'afflige et me poursuit
Et mon esprit troublé le voit encore la nuit.

2. Rétablissez l'ordre grammatical dans les cinq premiers vers de cet extrait, en faisant disparaître les inversions.

(*a*) Pourquoi *lui* et non pas *il*! Indiquez trois autres cas où l'on emploie les pronoms disjonctifs en français.

(*b*) Conjuguez ce verbe dans tous les temps simples à la première personne du singulier.

(*c*) Quelles sont les différentes manières d'écrire *quelque?*

(*d*) Analysez ce verbe.

(*e*) Conjuguez ce verbe aux temps simples de l'indicatif.

3. De qui Aman parla-t-il dans l'extrait ci-dessus? Décrivez les caractères représentés par l'un et l'autre.

4. Je ne mets point du tout votre talent en doute :

Mais il est malaisé de se frayer sa route :
Il faut se signaler entre mille rivaux,
Et l'on n'acquiert un nom que par de longs travaux.
Encor que de dégoûts et de déconvenues !
Les plus forts voient souvent leurs œuvres méconnues ;
Prud'hon et Géricault ont eu ce même sort
De n'être appréciés, tous deux, qu'après leur mort.
Notez que je vous nomme ici deux hommes rares,
Doués de qualités dont nos temps sont avares ;
Que si nous descendons au rang inférieur,
Il n'est pas d'humble état qui n'eût été meilleur :
C'est là qu'est la misère, urgente, impitoyable,
Dont vous n'avez jamais vu le spectre effroyable.

5. Distinguish between the *trouvères* and the *troubadours*. Who were the *jongleurs?* Name two famous *troubadours*.

6. What are the characteristics of the French literature of the 17th century? Compare it with the literature of the 18th century.

7. Ecrivez un court résumé de la vie de Pierre Corneille, J. J. Rousseau, Guizot et Alfred de Vigny.

8. Traduisez en français :

The old man, thus encouraged, began to lament the change which had been lately observed in the prince, and to inquire why he so often retired from pleasures of the palace to loneliness and silence. "I fly from pleasure," said the prince, "because pleasure has ceased to please; I am lonely because I am miserable, and am unwilling to cloud with my presence the happiness of others." "You, Sir," said the sage, "are the first who has complained of misery in the happy Valley."

SCOTT EXHIBITION.

MACAULAY:—*History of England* (Vol. I, cap. 1).

SCOTT:—*Lady of the Lake.*

MONDAY, SEPTEMBER 18TH:—MORNING, 9 TO 12.

Examiners,..... CHAS. E. MOYSE, B.A. / W. J. MESSENGER, B.A.

A.

1. Write on the separation of England and Normandy.

2. Describe the government of the Tudors.

3. Make notes on the following: Star Chamber, High Commission, Self-denying Ordinance, Petition of Right, Triennial Bill, the Independents.

4. Describe the resources of both parties at the outbreak of the Civil War.

5. Give a short account of the state of England under the protectorate of Cromwell.

6. Describe the part taken by Monk in bringing about the Restoration.

B.

1. Over what time does the action of Scott's poem extend? In what metre is it written?

2. Mention the songs in the poem, and briefly notice the theme of each.

3. Quote or give the substance of passages which illustrate:

(*a*) Scott's familiarity with distinctly Highland customs.

(*b*) His power as a colourist.

4. Describe (*a*) Ben-Venue, (*b*) Ellen, (*c*) the lodge. Trace the course of the Fiery-Cross, and indicate with precision the situation of the localities mentioned.

5. Give an outline of what occurs at Stirling.

6. Mention non-Scottish allusions which bear on history, literature or art.

EXHIBITION EXAMINATION.

THIRD AND FOURTH YEARS.

MATHEMATICS.

FRIDAY, SEPTEMBER 15TH:—MORNING, 9 TO 12.

Examiner,.....G. H. CHANDLER, M.A

1. Prove that the area of a triangle in terms of the co-ordinates of its angular points is $\frac{1}{2}[x_1 (y_2 - y_3) + x_2 (y_3 - y_1) + x_3 (y_1 - y_2$

2. Find the equation of a circle having (5, 3) for centre and $3x + 2y = 10$ for tangent.

3. One side of a triangle is fixed in magnitude and position, a second side in magnitude only; find the locus of the middle point of the third side.

4. Find the equations of the tangent and normal at any point of a hyperbola, reducing them to the ordinary forms.

5.* If $x = r \cos \theta$ and $y = r \sin \theta$, show that

(1) $x\,dy - y\,dx = r^2\,d\theta$,

(2) $x\,d^2y - y\,d^2x = 2r\,dr\,d\theta + r^2\,d^2\theta$.

6. Find the equations of the cycloid when the vertex is the origin and the tangent at the vertex is the axis of y. Show also that $ds/dx = \sqrt{2a/x}$.

7†. Hence show that the whole length of the cycloid is four times the diameter of the generating circle.

8. Find the radius of curvature at any point of an ellipse, *or* at any point of a helix on a cylinder of given radius.

9*. Integrate (1) $(\log x)^n\,dx/x$, (2) $\sqrt{x-a}\,dx$, (3) $\tan^2\theta\,d\theta$, (4) $d\theta/\cos^4\theta$, (5) $dx/(x\sqrt{4x^2-9})$.

10†. Integrate (1) $\dfrac{2x\,dx}{(1+x^2)(3+x^2)}$.

(2) $e^{-x} \sin 2x\,dx$.

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* For third year only.
† For fourth year only.

11. Show that the centrifugal pressure produced on the rails by a locomotive of w lbs. moving at the rate of v miles per hour in a curve of r feet radius is $.0669\ w\ v^2/r$ pounds.

12*. Particles slide from the common highest point of a series of vertical circles down their convex sides; find the locus of the points of departure from the circles.

13. When the roadway of a suspension bridge is uniformly loaded, show that the curve of the chain is a parabola.

14†. Find the ratio of the applied force to the resistance in a single pulley when friction is taken into account.

15†. A fly-wheel of a tons mass, b feet diameter, makes c revolutions per minute; show that the accumulated energy is $\cdot 087\ ab^2\ c^2$ foot pounds, nearly.

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* For third year only.

† For fourth year only.

FACULTY OF ARTS.

SESSIONAL EXAMINATIONS

1894.

FACULTY OF ARTS.

SESSIONAL EXAMINATIONS, 1894

FIRST YEAR.

GREEK ..... { *Xenophon, Hellenics, Bk. I.* / *Homer, Iliad, Bk. XXII.*

TUESDAY, APRIL 3RD;—MORNING, 9 TO 12.

Examiner,. ....A. JUDSON EATON, PH. D.
Assistant-Examiner,.....JOHN L. DAY, B.A.

1. Translate:

τοσοῦτον δ' ἔχω εἰπεῖν ὑπὲρ ἀμφοτέρων ὅτι ὁ χειμὼν διεκώλυσε μηδὲν πρᾶξαι ὧν οἱ στρατηγοὶ παρεσκευάσαντο. τούτων δὲ μάρτυρες οἱ σωθέντες ἀπὸ τοῦ αὐτομάτου. ὧν εἷς τῶν ἡμετέρων στρατηγῶν ἐπὶ καταδύσης νεὼς διασωθείς, ὃν κελεύουσι τῇ αὐτῇ ψήφῳ κρίνεσθαι, καὶ αὐτὸν τότε δεόμενον ἀναιρέσεως, ἥπερ τοὺς οὐ πράξαντας τὰ προσταχθέντα. μὴ τοίνυν, ὦ ἄνδρες Ἀθηναῖοι, ἀντὶ μὲν τῆς νίκης καὶ τῆς εὐτυχίας ὅμοια ποιήσητε τοῖς ἡττημένοις τε καὶ ἀτυχοῦσιν, ἀντὶ δὲ τῶν ἐκ θεοῦ ἀναγκαίων ἀγνωμονεῖν δόξητε, προδοσίαν καταγνόντες ἀντὶ τῆς ἀδυναμίας, οὐχ ἱκανοὺς γενομένους διὰ τὸν χειμῶνα πρᾶξαι τὰ προσταχθέντα· ἀλλὰ πολὺ δικαιότερον στεφάνοις γεραίρειν τοὺς νικῶντας ἢ θανάτῳ ζημιοῦν πονηροῖς ἀνθρώποις πειθομένους.—XEN. HELLEN. I. VII. 32–33.

2. *(a)* What constructions do verbs of *hindrance* allow after them? Illustrate by examples. *(b)* How are *prohibitions* expressed in Greek? Distinguish the two forms. *(c)* Explain the construction of ἀτυχοῦσιν and πρᾶξαι. *(d)* Give the stem and principal parts of ἔχω, δόξητε, πειθομένους. *(e)* Write out the imperf. indic. act. of φιλῶ (contracted forms), the pres. indic. of φημί, and 2nd aor. imper. act. of ἵημι. *(f)* State the various uses of the participle in Greek.

3. *(a)* Mention the points which were unconstitutional in the trial of the generals. *(b)* Explain the following terms: προβούλευμα, ψηφισμα, προβολή, ἔγραψη γνώμην, πρύτανις.

4. Translate *(at sight)*:

Ὁ δὲ Κῦρος ὡς εἶδε πολλοὺς ἱππέας ἀντίους, ἤρετο, Ἦ οὗτοι, ἔφη, ὦ πάππε, πολέμιοί εἰσιν, οἳ ἔφιστήκασι τοῖς ἵπποις ἠρέμα; Πολέμιοι μέντοι, ἔφη. Ἦ καὶ ἐκεῖνοι, ἔφη, οἱ ἐλαύνοντες; Κἀκεῖνοι μέντοι. Νὴ τὸν Δί,' ἔφη, ὦ πάππε, ἀλλ' οὖν πονηροί γε φαινόμενοι καὶ ἐπὶ πονηρῶν ἱππαρίων ἄγουσιν ἡμῶν τὰ χρήματα· οὐκοῦν χρὴ ἐλαύνειν τινὰς ἡμῶν ἐπ' αὐτούς. Ἀλλ' οὐχ ὁρᾷς, ἔφη, ὦ παῖ, ὅσον τὸ στῖφος τῶν ἱππέων ἕστηκε συντεταγμένον; οἵ, ἢν ἐπ' ἐκείνους ἡμεῖς ἐλαύνωμεν, ὑποτεμοῦνται ἡμᾶς πάλιν ἐκεῖνοι· ἡμῖν δὲ οὔπω ἡ ἰσχὺς πάρεστιν. Ἀλλ' ἢν σὺ μένῃς, ἔφη ὁ Κῦρος, καὶ ἀναλαμβάνῃς τοὺς προσβοηθοῦντας, φοβήσονται οὗτοι καὶ οὐ κινήσονται, οἱ δ' ἄγοντες εὐθὺς ἀφήσουσι τὴν λείαν, ἐπειδὰν ἴδωσί τινας ἐπ' αὐτοὺς ἐλαύνοντας.—Xenophon, Cyropaedeia.

5. Translate :

(a) "Ἕκτορ, μή μοι, ἄλαστε, συνημοσύνας ἀγόρευε.
Ὡς οὐκ ἔστι λέουσι καὶ ἀνδράσιν ὅρκια πιστὰ,
Οὐδὲ λύκοι τε καὶ ἄρνες ὁμόφρονα θυμὸν ἔχουσιν,
Ἀλλὰ κακὰ φρονέουσι διαμπερὲς ἀλλήλοισιν,
Ὡς οὐκ ἔστ' ἐμὲ καὶ σὲ φιλήμεναι, οὔτε τι νῶϊν
Ὅρκια ἔσσονται πρίν γ' ἢ ἕτερόν γε πεσόντα
Αἵματος ἆσαι Ἄρηα ταλαύρινον πολεμιστήν.
Παντοίης ἀρετῆς μιμνήσκεο· νῦν σε μάλα χρὴ
Αἰχμητήν τ' ἔμεναι καὶ θαρσαλέον πολεμιστήν.

(b) Τὸν δ' ἄρ' ὑπόδρα ἰδὼν προσέφη πόδας ὠκὺς Ἀχιλλεύς·
"Μή με, κύον, γούνων γουνάζεο μηδὲ τοκήων.
Αἲ γάρ πως αὐτόν με μένος καὶ θυμὸς ἀνείη
Ὠμ' ἀποταμνόμενον κρέα ἔδμεναι, οἷά μ' ἔοργας.
Ὡς οὐκ ἔσθ' ὃς σῆς γε κύνας κεφαλῆς ἀπαλάλκοι,
Οὐδ' εἴ κεν δεκάκις τε καὶ εἰκοσινήριτ' ἄποινα
Στήσωσ' ἐνθάδ' ἄγοντες, ὑπόσχωνται δὲ καὶ ἄλλα·
Οὐδ' εἴ κεν σ' αὐτὸν χρυσῷ ἐρύσασθαι ἀνώγοι
Δαρδανίδης Πρίαμος· οὐδ' ὥς σέ γε πότνια μήτηρ
Ἐνθεμένη λεχέεσσι γοήσεται, ὃν τέκεν αὐτὴ,
Ἀλλὰ κύνες τε καὶ οἰωνοὶ κατὰ πάντα δάσονται.

6. Ext. (A) Scan, making notes explanatory, the first seven lines. (1) Account for case of ἀνδράσι, αἵματος, ἀρετῆς, and the construction of φιλήμεναι and πεσόντα. (2) The derivation of ἄλαστε, διαμπερές, and ταλαύρινον.

7. Ext. (B) (*a*) ὑπόδρα ἰδών—how does Virgil translate this? (*b*) Explain fully the constructions involved in ἀνείη; ἀπαλάλκοι; στήσωσι; and ἀνώγοι. (*c*) Why the change of mood in the last (ἀνώγοι)? (*d*) Account for the peculiar accentuation of ὥς.

8. State some of the Homeric peculiarities in the conditional sentence. Show the relation of the potential indicative and optative, and the form for expressing a wish, to the normal conditional sentence.

9. Show the application of lost sounds to the Homeric versification and state the theories advanced to account for the negative instances of the Digamma.

10. Short notes on: πηγαὶ Σκάμανδρου, the infinitive in Homer, the —φι case, νυκτὸς ἀμολγῷ, γλαυκῶπις Ἀθήνη, the root ΜΑ; γάλακος, the use of ὄφρα, Bucolic diaeresis.

Intermediate Examination.

GREEK..... { *Plato, Apology.*
Aeschylus, Prometheus Vinctus.

Tuesday, April 3rd:—Morning, 9 to 12.

Examiners,..... ..... { A. Judson Eaton, Ph.D.
W. Crocket, M.A.

Assistant Examiner,.....John L. Day, B.A.

1. Translate:

(A) Τελευτῶν οὖν ἐπὶ τοὺς χειροτέχνας ᾖα· ἐμαυτῷ γὰρ ξυνήδειν οὐδὲν ἐπισταμένῳ, ὡς ἔπος εἰπεῖν, τούτους γέ γ' ἤδειν ὅτι εὑρήσοιμι πολλὰ καὶ καλὰ ἐπισταμένους. καὶ τούτου μὲν οὐκ ἐψεύσθην, ἀλλ' ἠπίσταντο ἃ ἐγὼ οὐκ ἠπιστάμην καί μου ταύτῃ σοφώτεροι ἦσαν. ἀλλ', ὦ ἄνδρες Ἀθηναῖοι, ταὐτόν μοι ἔδοξαν ἔχειν ἁμάρτημα, ὅπερ καὶ οἱ ποιηταί. καί οἱ ἀγαθοὶ δημιουργοί· διὰ τὸ τὴν τέχνην καλῶς ἐξεργάζεσθαι ἕκαστος ἠξίου καὶ τἆλλα τὰ μέγιστα σοφώτατος εἶναι, καὶ αὐτῶν αὕτη ἡ πλημμέλεια ἐκείνην τὴν σοφίαν ἀπέκρυπτεν· ὥστ' ἐμὲ ἐμαυτὸν ἀνερωτᾶν ὑπὲρ

τοῦ χρησμοῦ, πότερα ὀξεαίμην ἂν οὕτως ὥσπερ ἔχω ἔχειν, μήτε τι σοφὸς ὢν τὴν ἐκείνων σοφίαν, μήτε ἀμαθὴς τὴν ἀμαθίαν, ἢ ἀμφότερα ἃ ἐκεῖνοι ἔχουσιν ἔχειν. ἀπεκρινάμην οὖν ἐμαυτῷ καὶ τῷ χρησμῷ, ὅτι μοι λυσιτελοῖ ὥσπερ ἔχω ἔχειν.

(B) Ἴθι δὴ νῦν εἰπὲ τούτοις, τίς αὐτοὺς βελτίους ποιεῖ; δῆλον γὰρ, ὅτι οἶσθα, μελον γέ σοι. τὸν μὲν γὰρ διαφθείροντα ἐξευρών, ὡς φῄς, ἐμὲ εἰσάγεις τουτοισὶ καὶ κατηγορεῖς· τὸν δὲ δὴ βελτίους ποιοῦντα ἴθι εἰπὲ καὶ μήνυσον αὐτοῖς, τίς ἐστιν, ὁρᾷς, ὦ Μελητε, ὅτι σιγᾷς καὶ οὐκ ἔχεις εἰπεῖν; καίτοι οὐκ αἰσχρόν σοι δοκεῖ εἶναι καὶ ἱκανὸν τεκμήριον οὗ δὴ ἐγὼ λέγω, ὅτι σοι οὐδὲν μεμέληκεν: ἀλλ' εἰπέ, ὦ 'γαθέ, τὶς αὐτοὺς ἀμείνους ποιεῖ; Οἱ νόμοι.

(C) εἰ δ' αὖ οἷον ἀποδημῆσαί ἐστιν ὁ θάνατος ἐνθένδε εἰς ἄλλον τόπον, καὶ ἀληθῆ ἐστι τὰ λεγόμενα, ὡς ἄρα ἐκεῖ εἰσὶν ἅπαντες οἱ τεθνεῶτες, τί μεῖζον ἀγαθὸν τούτου εἴη ἄν, ὦ ἄνδρες δικασταί; εἰ γὰρ τις ἀφικόμενος εἰς Ἅιδου, ἀπαλλαγεὶς τούτων τῶν φασκόντων δικαστῶν εἶναι, εὑρήσει τοὺς ὡς ἀληθῶς δικαστάς, οἵπερ καὶ λέγονται ἐκεῖ δικάζειν, Μίνως τε καὶ Ῥαδάμανθυς καὶ Αἰακὸς καὶ Τριπτόλεμος, καὶ ἄλλοι ὅσοι τῶν ἡμιθέων δίκαιοι ἐγένοντο ἐν τῷ ἑαυτῶν βίῳ, ἆρα φαύλη ἂν εἴη ἡ ἀποδημία.

2. *(a)* ἐπισταμένῳ: what other construction is found in the Apology with *σύνοιδα*? *(b)* Explain the *mood* and *tense* of *εὑρήσοιμι*. *(c)* Supply the condition to *δεξαίμην ἄν*. To what form of condition does it belong? *(d)* Account for the case of *ταύτῃ, σοφίαν, ἀμφότερα* (Ext. a): *οὗ* (Ext. b): Ἅιδου, *δικαστων*, Μίνως (Ext. c). *(e)* Give the derivation, and explain the formation from stems, of *δημιουργοί, πλημμελεια*, Ἅιδου, *χειροτέχνας*. *(f)* Explain the construction of *μέλον γέ σοι, τουτοισὶ* in (Ext. b). *(g)*

Give the interrogative particles in Greek corresponding to *num*, *nonne* and *ne*. *(h)* Remark on the form of conditional sentences found in (Ext. c). *(g)* Write short notes on Μίνως, Ῥαδάμανθυς, Τριπτόλεμος, Ὀρφεύς.

3. Write briefly on any *three* of the following topics:

(a) οἱ ἕνδεκα.

(*b*) The δαιμόνιον of Socrates.

(*c*) The early Greek philosophers.

(*d*) The Three Prosecutors of Socrates.

4. Translate:

(a) ὦ δῖος αἰθὴρ, καὶ ταχύπτεροι πνοαὶ,
ποταμῶν τε πηγαὶ, ποντίων τε κυμάτων
ἀνήριθμον γέλασμα, παμμῆτόρ τε γῆ,
καὶ τὸν πανόπτην κύκλον ἡλίου καλῶ·
ἴδεσθέ μ' οἷα πρὸς θεῶν πάσχω θεός.
δέρχθηθ' οἵαις αἰκίαισιν
διακναιόμενος τὸν μυριετῆ
χρόνον ἀθλεύσω. τοιόνδ' ὁ νέος
ταγὸς μακάρων ἐξηῦρ' ἐπ' ἐμοὶ
δεσμὸν ἀεικῆ.
φεῦ φεῦ· τὸ παρὸν τό τ' ἐπερχόμενον
πῆμα στενάχω, πῆ ποτε μόχθων
χρὴ τέρματα τῶνδ' ἐπιτεῖλαι.

(b) ὑπὸ δὲ κηρόπλαστος ὀτοβεῖ δόναξ
ἀχετας ὑπνοδόταν νόμον. ἰὼ, ἰὼ, πόποι,
ὦ πόποι, ποῖ μ' ἄγουσι τηλέπλανοι πλάναι;
τί ποτέ μ', ὦ Κρόνιε παῖ, τί ποτε ταῖσδ'
ἐνέζευξας εὑρὼν ἁμαρτοῦσαν
ἐν πημοσύναις, ἐὴ,

οἰστρηλάτῳ δὲ δείματι δειλαίαν
παράκοπον ὧδε τείρεις ;
πυρί με φλέξον, ἢ χθονὶ κάλυψον, ἢ ποντίοις δάκεσι
δός βορὰν,
μηδέ μοι φθονήσῃς
εὐγμάτων, ἄναξ.
ἄδην με πολύπλανοι πλάναι
γεγυμνάκασιν, οὐδ' ἔχω μαθεῖν ὅπα
πημονὰς ἀλύξω.
κλύεις φθέγμα τᾶς βούκερω παρθένου ;

(*c*) ΠΡ. δυοῖν λόγοιν σε θατέρῳ δωρήσομαι.
ΙΩ. ποίοιν ; πρόδειξον αἵρεσίν τ' ἐμοὶ δίδου.
ΠΡ. δίδωμ'· ἑλοῦ γὰρ ἢ πόνων τὰ λοιπά σοι
φράσω σαφηνῶς, ἢ τὸν ἐκλύσοντ' ἐμέ.
ΧΟ τούτων σὺ τὴν μὲν τῇδε, τὴν δ' ἐμοὶ χάριν
θέσθαι θέλησον, μηδ' ἀτιμάσῃς λόγου·
καὶ τῇδε μὲν γέγωνε τὴν λοιπὴν πλάνην,
ἐμοὶ δὲ τὸν λύσοντα· τοῦτο γὰρ ποθῶ.
ΠΡ. ἐπεὶ προθυμεῖσθ', οὐκ ἐναντιώσομαι
τὸ μὴ οὐ γεγωνεῖν πᾶν ὅσον προσχρῄζετε.
σοὶ πρῶτον, Ἰοῖ, πολύδονον πλάνην φράσω,
ἣν ἐγγράφου σὺ μνήμοσιν δέλτοις φρενῶν.

5. In what metres is extract (*a*) written? Write down the scheme of the metre of the first part, and scan the first two lines of Extract (*a*), and the last three of Extract (*c*). Scan the last four lines of extract (*a*), and explain the peculiarities of this metrical system.

6. (*a*) Derive ταχύπτεροι, ἀνήριθμον, μυριετῆ, ταγός, οἰστρηλάτῳ, παράκοπον, δέλτοις. (*b*) Decline Ἰώ. (*c*) τίποτε..... πημοσύναις: explain the construction of τί

and *ἁμαρτοῦσαν*. (*d*) *μηδέ μοι φθονήσῃς*: distinguish the two forms of *prohibitions* in Greek. (*e*) *δυοῖν*.....*δωρήσομαι*: remark on this construction, and compare it with that of *donare* in Latin. (*f*) *τουτων* (line 5 of extract (*e*)): supply the ellipsis. Another reading is *τούτοιν*: explain. (*g*) *οὐκ ἐναντιώσομαι τὸ μὴ οὐ γεγωνεῖν*: remark on the construction.

7. (*a*) Briefly relate the myth upon which this tragedy is founded. (*b*) Where is the scene laid? (*c*) Enumerate and define the 'parts' into which Greek plays were divided by ancient critics.

THIRD YEAR.

GREEK.—EURIPIDES.—MEDEA.

MONDAY, APRIL 9TH:—MORNING, 9 TO 12.

Examiner.....REV. GEORGE CORNISH, M.A., LL.D.

1. Translate:—

(A) ΠΑ. *ἤκουσά του λέγοντος, οὐ δοκῶν κλύειν*
πεσσοὺς προσελθὼν, ἔνθα δὴ παλαίτατοι
θάσσουσι, σεμνὸν ἀμφὶ Πειρήνης ὕδωρ,
ὡς τούσδε παῖδας γῆς ἐλᾶν Κορινθίας
ξὺν μητρὶ μέλλοι τῆσδε κοίρανος χθονὸς
Κρέων· ὁ μέντοι μῦθος εἰ σαφὴς ὅδε
οὐκ οἶδα· βουλοίμην δ' ἂν οὐκ εἶναι τάδε.
ΤΡ. *καὶ ταῦτ' Ἰάσων παῖδας ἐξανέξεται*
πάσχοντας, εἰ καὶ μητρὶ διαφορὰν ἔχει;
ΠΑ. *παλαιὰ καινῶν λείπεται κηδευμάτων,*
κοὐκ ἔστ' ἐκεῖνος τοῖσδε δώμασιν φιλος.

ΤΡ. ἀπωλόμεσθ ἄρ', εἰ κακὸν προσοίσομεν
νέον παλαιῷ, πρὶν τόδ' ἐξηντληκέναι.
ΠΑ. ἀτὰρ σύ γ', οὐ γὰρ καιρὸς εἰδέναι τάδε
δέσποιναν, ἡσύχαζε καὶ σίγα λόγον.

(B) μή, πρὸς γονάτων σε πάντες
πάντως ἱκετεύομεν,
μὴ τέκνα φονεύσῃς.
πόθεν θράσος ἢ φρενὸς ἢ
χειρὶ τέκνων σέθεν
καρδίᾳ τε λήψει,
δεινὰν προσάγουσα τόλμαν ;
πῶς δ' ὄμματα προσβαλοῦσα
τέκνοις ἄδακρυν μοῖραν
σχήσεις φόνου ; οὐ δυνάσει,
παίδων ἱκετᾶν πιτνόντων,
τέγξαι χέρα φοινίαν
ἐν τλάμονι θυμῷ.

(C) οὐκ οἶδ' ἂν εἰ πείσαιμι, πειρᾶσθαι δὲ χρὴ.
σὺ δ' ἀλλὰ σὴν κέλευσον αἰτεῖσθαι πατρὸς
γυναῖκα παῖδας τήνδε μὴ φεύγειν χθόνα.
μάλιστα, καὶ πείσειν γε δοξάζω σφ' ἐγώ,
εἴπερ γυναικῶν ἐστι τῶν ἄλλων μία.
συλλήψομαι δὲ τοῦδέ σοι κἀγὼ πόνου·
πέμψω γὰρ αὐτῇ δῶρ', ἃ καλλιστεύεται
τῶν νῦν ἐν ἀνθρώποισιν, οἶδ' ἐγώ, πολύ,
λεπτόν τε πέπλον καὶ πλόκον χρυσήλατον
παῖδας φέροντας. ἀλλ' ὅσον τάχος χρεὼν
κόσμον κομίζειν δεῦρο προσπόλων τινά.
εὐδαιμονήσει δ' οὐχ ἓν ἀλλά μυρία,
ἀνδρός τ' ἀρίστου σοῦ τυχοῦσ' ὁμευνέτου,
κεκτημένη τε κόσμον ὃν ποθ' Ἥλιος

πατρὸς πατὴρ δίδωσιν ἐκγόνοισιν οἷς.
λάζυσθε φερνὰς τάσδε, παῖδες, εἰς χέρας,
καὶ τῇ τυράννῳ μακαρίᾳ νύμφῃ δότε
φέροντες· οὗτοι δῶρα μεμπτὰ δέξεται.

2. *(a)* In ext. (A) explain :—(1) πεσσοὺς προσελθών. (2) ἀπωλόμεσθ'. (3) ἐξηντληκέναι. (4) κηδευμάτων. *(b)* In ext. (B) explain :—(1) πρὸς γονάτων σε. (2) τέκνων σέθεν —why Genit? (3) θράσος or θάρσος? (4) Point out Doric forms. *(c)* In ext. (C) :—(1) Assign the vss. to their several speakers, and state what change has been suggested concerning vs. 4. (2) αἰτεῖσθαι πατρός :—point out the solecism, and what change of reading has been proposed to remove it. (3) Comment on the irony in the use of μακαρίᾳ and μεμπτά.

3. Explain carefully the use of the *oblique cases* in :— (1) δυστάλαινα τῆς ἐμῆς αὐθαδίας. (2) εἴπερ γὰρ ἡμᾶς ἀξιοῖ λόγου τινὸς γυνὴ προθήσει χρημάτων. (3) εὐνῆς ἀζυγες γαμηλίου. (4) ξυμβάλλεται δὲ πολλὰ τοῦδε δείματος· (5) παλαιὰ λείπεται κηδευμάτων. (6) ᾗ χρὴν μετεῖναι τῶνδε τῶν βουλευμάτων, νύμφῃ τε κηδεύουσαν ἥδεσθαι σέθεν.

4. *(a)* πρὸς ἡδονὴν λόγους. ἐμαυτῇ διὰ λόγων ἀφικόμην. προσγῆρας οὐκ εὔδοξον. μὴ πρὸς ἰσχύος χάριν :—Translate, and explain the import of the propositions. *(b)* ἀτιμάσας ἔχει. γυνὴ δὲ θῆλυ ἔφυ. γυνὴ δὲ θήλυς οὖσα (Soph.). οὐδὲ ταῦτ' ἐπῄνεσα. ὡς τί χρῄζων τήνδε ναυστολεῖς χθόνα ; καὶ γὰρ ἠδικημένοι σιγησόμεσθα (Medea). Comment on and explain these usages.

5. Give the meaning and etymology of the following :— δέργμα, ἀρτίφρων, ἐξηντληκέναι, ἁπλάτου, σκαιούς, προσάντες, ἐχεγγύους, ἀβρῶς, κίβδηλος, χλωρόν.

6. Parse the following:—*μολόντας, ἐξηύχου, δηχθείη, σφέ, κάλων, ἐκβαλεῖν, ἀμφιθῇ, μεθῶ, εἵλου, σίγα, τάκου, ἐξελᾷ.*

7. Resolve the following crases:—*τοὔπος, χὠ, τἄρα, χαὐτή, ἀνήρ, μῶν, κἄν, κὰν.*

8. Name the metre, giving the scheme, of ext. (A), and scan the first four vss. of the same ext.

B.A. ORDINARY EXAMINATION.

FRIDAY, APRIL 13TH:—MORNING, 9 TO 12.

GREEK..... ... { AESCHINES—CONTRA CTESIPHONTEM. / EURIPIDES.—MEDEA.

Examiners,..... { REV. GEORGE CORNISH, M.A., LL.D. / PROF. CROCKET, M.A.

1. Translate:—

(A) *Πρῶτον μὲν τοίνυν, ὦ Ἀθηναῖοι, ἀντιγραφεὺς ἦν χειροτονητὸς τῇ πόλει, ὃς καθ' ἑκάστην πρυτανείαν ἀπελογίζετο τὰς προσόδους τῷ δήμῳ. διὰ δὲ τὴν πρὸς Εὔβουλον γενομένην πίστιν ὑμῖν οἱ ἐπὶ τὸ θεωρικὸν κεχειροτονημένοι ἦρχον μέν, πρὶν ἢ τὸν Ἡγήμονος νόμον γενέσθαι, τὴν τοῦ ἀντιγραφέως ἀρχήν, ἦρχον δὲ τὴν τῶν ἀποδεκτῶν, καὶ νεώριον καὶ σκευοθήκην ᾠκοδόμουν, ἦσαν δὲ καὶ ὁδοποιοὶ καὶ σχεδὸν τὴν ὅλην διοίκησιν εἶχον τῆς πόλεως. καὶ οὐ κατηγορῶν αὐτῶν οὐδ' ἐπιτιμῶν λέγω, ἀλλ' ἐκεῖνο ὑμῖν ἐνδείξασθαι βούλομαι, ὅτι ὁ μὲν νομοθέτης, ἐάν τις μιᾶς ἀρχῆς τῆς ἐλαχίστης ὑπεύθυνος ᾖ, τοῦτον οὐκ ἐᾷ, πρὶν ἂν λόγον καὶ εὐθύνας δῷ, στεφανοῦν, ὁ δὲ Κτησιφῶν Δημοσθένην τὸν συλλήβδην ἁπάσας τὰς Ἀθήνησιν ἀρχὰς ἄρχοντα οὐκ ὤκνησε γράψαι στεφανῶσαι.*

(B) Ἐγὼ τὸν μὲν βίον τὸν Δημοσθένους ἐξετάζειν μακροτέρου λόγου ἔργον ἡγοῦμαι εἶναι. τί γὰρ δεῖ νῦν ταῦτα λέγειν, ἢ τὰ περὶ τὴν τοῦ τραύματος γραφὴν αὐτῷ συμβεβηκότα, ὅτ' ἐγράψατο εἰς Ἄρειον πάγον Δημομέλην τὸν Παιανιέα ἀνεψιὸν ὄντα ἑαυτῷ καὶ τὴν τῆς κεφαλῆς ἐπιτομήν· ἢ τὰ περὶ τὴν Κηφισοδότου στρατηγίαν καὶ τὸν τῶν νεῶν ἔκπλουν τὸν εἰς Ἑλλησπόντον, ὅτε εἷς ὢν τριηράρχων Δημοσθένης καὶ περιάγων τὸν στρατηγὸν ἐπὶ τῆς νεὼς καὶ συνιστῶν καὶ συνθύων καὶ συσπένδων, καὶ τούτων ἀξιωθεὶς διὰ τὸ πατρικὸς αὐτῷ φίλος εἶναι, οὐκ ὤκνησεν ἀπ' εἰσαγγελίας αὐτοῦ κρινομένου περὶ θανάτου κατήγορος γενέσθαι· καὶ ταῦτα ἤδη τὰ περὶ Μειδίαν καὶ τοὺς κονδύλους, οὓς ἔλαβεν ἐν τῇ ὀρχήστρᾳ χορηγὸς ὤν, καὶ ὡς ἀπέδοτο τριάκοντα μνῶν ἅμα τήν τε εἰς αὐτὸν ὕβριν καὶ τὴν τοῦ δήμου καταχειροτονίαν, ἣν ἐν Διονύσου κατεχειροτόνησε Μειδίου.

(C) Ἔνθα δὴ καὶ τῶν ἀγαθῶν ἀνδρῶν ἄξιόν ἐστιν ἐπιμνησθῆναι, οὓς οὗτος ἀθύτων καὶ ἀκαλλιερήτων ὄντων τῶν ἱερῶν ἐκπέμψας ἐπὶ τὸν πρόδηλον κίνδυνον ἐτόλμησε τοῖς δραπέταις ποσὶ καὶ λελοιπόσι τὴν τάξιν ἀναβὰς ἐπὶ τὸν τάφον τῶν τετελευτηκότων ἐγκωμιάζειν τὴν ἐκείνων ἀρετήν. ὦ πρὸς μὲν τὰ μεγάλα καὶ σπουδαῖα πάντων ἀνθρώπων ἀχρηστότατε, πρὸς δὲ τὴν ἐν τοῖς λόγοις τόλμαν θαυμασιώτατε, ἐπιχειρήσειν ἐθελήσεις αὐτίκα μάλα, βλέπων εἰς τὰ τούτων πρόσωπα, λέγειν, ὡς δεῖ σε ἐπὶ ταῖς τῆς πόλεως συμφοραῖς στεφανοῦσθαι; ἐὰν δ' οὗτος λέγῃ, ὑμεῖς ὑπομενεῖτε, καὶ συναποθανεῖται τοῖς τελευτήσασιν, ὡς ἔοικε, καὶ ἡ ὑμετέρα μνήμη;

2. *(a)* Explain the personal references in Ext. (B). *(b)* Describe briefly the constitution and functions of:—(1) ἡ βουλὴ οἱ πεντακοσίοι. (2) ἡ βουλὴ ἡ ἐν Ἀρείῳ πάγῳ.

(3) *ἡ ἐκκλησία.* *(c)* Write explanatory notes on any six of the following:—(1) *πρόεδροι.* (2) *φυλὴ πρυτανεύουσα.* (3) *πρυτανεία.* (4) *πρυτάνεις.* (5) *εἰσαγγελία.* (6) *εὐθύνη.* (7) *οἱ θεσμοθέται.* (8) *ἡγεμονία δικαστηρίων.* (9) *τριήραρχοι.* (10) *τὰ θεωρικά.* (11) *ἀντιγραφεύς.* (12) *τειχοποιός.* (13) *τὰ Διονύσια τὰ ἐν ἄστει.* (14) *πυλαγόραι.* (15) *ἱερομνήμονες.* Give the divisions of the Attic month and explain the manner of dating.

3. Translate and explain the following idiomatic phrases:—*(a)* *προσέμιξε φέρων.* *(b)* *ἔλαθεν μικρὸν ἐπισχὼν ὑφελόμενος.* *(c)* *ἐκεῖνο πεπόνθατε.* *(d)* *ἐπὶ διετὲς ἡβῶσι.* *(e)* *ἦκε φερόμενος εἰς τὴν ἑαυτοῦ φύσιν.* *(f)* *τὰς εὐθύνας ὠφληκώς.*

4. Translate, Euripides, Medea:—

(a) TP. *τέκνων ὀπαδὲ πρέσβυ τῶν Ἰάσονος,*
χρηστοῖσι δούλοις ξυμφορὰ τὰ δεσποτῶν
κακῶς πίτνοντα καὶ φρενῶν ἀνθάπτεται.
ἐγὼ γὰρ ἐς τοῦτ' ἐκβέβηκ' ἀλγηδόνος,
ὥσθ' ἵμερός μ' ὑπῆλθε γῆ τε κοὐρανῷ
λέξαι μολούσῃ δεῦρο δεσποίνης τύχας.

(1) Parse *ξυμφορὰ* and distinguish from *ξύμφορα.* (2) *ἵμερός μ' μολούσῃ*:—point out the elision in *μ'*, and account for the Dative *μολούσῃ.*

(b) *τὸ γὰρ εἰθίσθαι ζῆν ἐπ' ἴσοισιν*
κρεῖσσον· ἔμοιγ' οὖν, εἰ μὴ μεγάλως,
ὀχυρῶς γ' εἴη καταγηράσκειν.
τῶν γὰρ μετρίων πρῶτα μὲν εἰπεῖν 125
τοὔνομα νικᾷ, χρῆσθαί τε μακρῷ
λῷστα βροτοῖσιν· τὰ δ' ὑπερβάλλοντ'
οὐδένα καιρὸν δύναται θνατοῖς.
μείζους δ' ἄτας, ὅταν ὀργισθῇ
δαίμων, οἴκοις ἀπέδωκεν. 130

(1) Construe carefully vss. 125–130. (2) What is the subject of *ἀπέδωκεν* ?

(*c*) ΚΡ. *λέγεις ἀκοῦσαι μαλθακ', ἀλλ' εἴσω φρενῶν*
ὀρρωδία μοι μή τι βουλεύῃς κακόν,
τοσῷδε δ' ἧσσον ἢ πάρος πέποιθά σοι·
γυνὴ γὰρ ὀξύθυμος, ὡς δ' αὔτως ἀνήρ,
ῥᾴων φυλάσσειν ἢ σιωπηλὸς σοφός.
ἀλλ' ἔξιθ' ὡς τάχιστα, μὴ λόγους λέγε·
ὡς ταῦτ' ἄραρε, κοὐκ ἔχεις τέχνην ὅπως
μενεῖς παρ' ἡμῖν, οὖσα δυσμενὴς ἐμοί.

(1) *ἀκοῦσαι—φυλάσσειν* : What use of the Infin. ? (2) *βουλεύῃς—βουλεύσῃς* :—distinguish between these variants. (3) *ἄραρε* :—parse, and show the quantity of the penult. (4) *μενεῖς* :—parse, and explain the mood.

(*d*) ΙΑ. *δεῖ μ', ὡς ἔοικε, μὴ κακὸν φῦναι λέγειν.*
ἀλλ' ὥστε ναὸς κεδνὸν οἰακοστρόφον
ἄκροισι λαίφους κρασπέδοις ὑπεκδραμεῖν
τὴν σὴν στόμαργον, ὦ γύναι, γλωσσαλγίαν.

(1) Give the derivation of :—*οἰακοστρόφον, στόμαργον, γλωσσαλγίαν.* (2) Explain the metaphor here used.

(*e*) ΜΗ. *ὦ Ζεῦ Δίκη τε Ζηνὸς Ἡλίου τε φῶς,*
νῦν καλλίνικοι τῶν ἐμῶν ἐχθρῶν, φίλαι,
γενησόμεσθα, κεἰς ὁδὸν βεβήκαμεν·
νῦν δ' ἐλπὶς ἐχθροὺς τοὺς ἐμοὺς τίσειν δίκην.
οὗτος γὰρ ἀνὴρ ᾗ μάλιστ' ἐκάμνομεν
λιμὴν πέφανται τῶν ἐμῶν βουλευμάτων·

(1) *καλλίνικοι* :—explain this use of the *Mas. Plu.*

(*f*) *κἄπειτ' ἀναστᾶσ' ἐκ θρόνων διέρχεται*
στέγας, ἁβρὸν βαίνουσα παλλεύκῳ ποδι,

δώροις ὑπερχαίρουσα, πολλὰ πολλάκις
τένοντ' ἐς ὀρθὸν ὄμμασι σκοπουμένη.
τοὐνθένδε μέντοι δεινὸν ἦν θέαμ' ἰδεῖν·
χροιὰν γὰρ ἀλλάξασα λεχρία πάλιν 1168
χωρεῖ τρέμουσα κῶλα, καὶ μόλις φθάνει
θρόνοισιν ἐμπεσοῦσα μὴ χαμαὶ πεσεῖν. 1170

(1) Explain the meaning of τένοντ' ἐς ὀρθόν. (2) Construe vss. 1168–1170. (3) χαμαί:—what case? express it in Latin.

FIRST YEAR.

LATIN.

CICERO, *De Amicitia*;—VIRGIL, *Aeneid* VI.;

LATIN PROSE COMPOSITION.

WEDNESDAY, 4TH APRIL: —MORNING, 9 TO 12.

Examiner,..... A. JUDSON EATON, PH.D.
Assistant Examiner,.....JOHN L. DAY, B.A

A.

I. Translate:

(*a*) Saepissime igitur mihi de amicitia cogitanti maxime illud considerandum videri solet, utrum propter imbecillitatem atque inopiam desiderata sit amicitia, ut dandis recipiendisque meritis, quod quisque minus per se ipse posset, id acciperet ab alio vicissimque redderet, an esset hoc quidem proprium amicitiae, sed antiquior et pulchrior et magis a natura ipsa profecta alia causa. Amor enim, ex quo amicitia nominata est, princeps est ad benevolentiam coniungendam. Nam utilitates quidem etiam ab eis percipiuntur saepe qui simulatione amicitiae coluntur et observantur temporis causa: in amicitia autem nihil fictum est, nihil simulatum; et quidquid est, id et verum est et voluntarium.

(*β*) Cum autem contrahat amicitiam, ut supra dixi, si qua significatio virtutis eluceat ad quam se similis animus applicet et adiungat, id cum contigit, amor exoriatur necesse est.

II. Ext. (*a*) (1) Account for the case of *mihi*, *meritis*. (2) Explain the syntax of the subjunctive moods in the passage. (3) Distinguish the synonyms of *amo* and *videtur*. (4) The formation of *praesertim*.

Ext. (β) (1) Account for the moods in this passage. (2) What cases follow *similis*, and with what difference of meaning? (3) Draw a distinction between *animus*, *anima*, and *mens*, and compare their Greek equivalents.

III. (α) At, Phoebi nondum patiens, immanis in antro
Bacchatur vates, magnum si pectore possit
Excussisse deum: tanto magis ille fatigat
Os rabidum, fera corda domans, fingitque premendo.
Ostia iamque domus patuere ingentia centum
Sponte sua, vatisque ferunt responsa per auras:
O tandem magnis pelagi defuncte periclis!
Sed terra graviora manent. In regna Lavini
Dardanidae venient; mitte hanc de pectore curam;
Sed non et venisse volent. Bella, horrida bella,
Et Thybrim multo spumantem sanguine cerno.

(δ) Egregia interea coniunx arma omnia tectis
Emovet, et fidum capiti subduxerat ensem:
Intra tecta vocat Menelaum, et limina pandit:
Scilicet id magnum sperans fore munus amanti,
Et famam exstingui veterum sic posse malorum.
Quid moror? inrumpunt thalamo; comes additus una
Hortatur scelerum Aeolides. Di, talia Graiis
Instaurate, pio si poenas ore reposco.
Sed te qui vivum casus, age fare vicissim,
Adtulerint. Pelagine venis erroribus actus.
An monitu divom? an quae te Fortuna fatigat,
Ut tristis sine sole domos, loca turbida, adires?

(ε) Sunt geminae Somni portae: quarum altera fertur
Cornea; qua veris facilis datur exitus umbris:
Altera candenti perfecta nitens elephanto;
Sed falsa ad coelum mittunt insomnia Manes.
His ubi tum natum Anchises unaque Sibyllam
Prosequitur dictis, portaque emittit eburna:
Ille viam secat ad navis, sociosque revisit;
Tum se ad Caietae recto fert limite portum
Ancora de prora iacitur; stant litore puppes.

IV. Ext. (γ) Mention other adjectives which take the same construction as *patiens*. Remark on this construction of *excussisse*.

Ext. (δ) Why is *coniunx* dative? *adtulerint*, *adires*: explain the syntax.

Ext. (ε) *fertur*: what is implied in the use of this word? *elephanto*: what case and why? What other reading for *limite*?

V. (*a*) What interpretations have been given of the gates mentioned in Ext. (*e*) above?

(*b*) Write a short account of the Roman burial custom, touching on the references to the same in Aeneid VI.

VI. (1) Write a note on the following constructions, illustrating by examples: (*a*) Dative of service. (*b*) Ablative with *opus*. (*c*) Potential Subjunctive. (*d*) Passive of Intransitive verbs. (2) Scan the whole of Ext. (*e*), marking the quantity of long vowels.

VII. Explain the main points in the following constructions:

(i) Paulatim adnabam terrae: iam tuta tenebam ni gens crudelis madida cum veste gravatum.....ferro invasisset.

(ii) Et fors omne datum traherent per talia tempus sed comes admonuit.

(iii) Non illi se quisquam impune tulisset
Obvius armato, seu cum pedes iret in hostem
Seu spumantis equi foederet calcaribus armos.

VIII. Quote either (*a*) Virgil's description of Charon, or (*β*) the passage beginning "Quo fessum rapitis, Fabii?" *or* (*γ*) any other passage (not less than seven lines).

IX.* What *variae lectiones* occur, and with what difference in meaning, in these passages?

(i) Tu ne cede malis, sed contra audentior ito,
Quam tua te Fortuna sinet.

(ii) Sedibus optatis gemina super arbore siduut.

(iii) Festinant flentes aramque sepulchro
Congerere arboribus caeloque educere certant.

* Extra question.

B.

LATIN COMPOSITION AND TRANSLATION AT SIGHT.

X. Translate:

Reliquum diei expediendis armis et curatione corporum consumptum, et maior pars noctis quieti data est. Quarta vigilia movere. Erant ultra proxima castra sex milium intervallo distantes aliae copiae Poenorum: valles cava intererat condensa arboribus: in huius silvae medio ferme spatio cohors Romana arte Punica abditur et equites. Ita medio itinere intercepto ceterae copiae silenti agmine ad proximos hostes ductae, et, cum statio nulla pro portis neque in vallo custodiae essent, velut in sua castra nullo usquam obsistente penetravere. Inde signa canunt et tollitur clamor: pars semisomnos hostes caedunt, pars ignes casis stramento arido tectis iniciunt, pars portas occupant ut fugam intercludant. Hostes simul

ignis clamor caedes velut alienatos sensibus nec audire nec providere quic quam sinunt: incidunt inermes inter catervas armatorum: alii ruunt ad portas, alii obsaeptis itineribus super vallum saliunt: et ut quisque evaserat, protinus ad castra altera fugiunt, ubi ab cohorte et equitibus ex occulto procurrentibus circumventi caesique ad unum omnes sunt: quamquam, etiam si quis ex ea caede effugisset, adeo raptim a captis propioribus castris in altera transcursum castra ab Romanis est, ut praevenire nuntius cladis non posset.

XI. Translate into Latin:

(1) These are indignant that an army of the Romans is wintering and getting a foothold in Gaul. (2) They informed him that the Germans were in arms, and that even their own brothers and kinsmen could not be kept by them from uniting with the Belgae. (3) After burning the villages and dwellings of the Remi all the forces of the enemy hastened against Caesar. (4) The citizens were all carried off and sent to the king. (5) Having led out their forces, they pitched a camp. (6) Not by violence did he obtain his power, but by the consent of the people. (7) Darius, after his return to Asia, resolved to reduce Europe under his power, for the Athenians had aided the Ionians and killed his garrisons. The fleet which he got ready was brought to Euboea by his commanders, and all the citizens of Eretria were carried off to the king. From there they led their forces into the plain of Marathon. This so alarmed the Athenians that they besought the aid of the Lacedaemonians, announcing what speedy assistance they needed.

FIRST YEAR.

ROMAN HISTORY AND LITERATURE.

HISTORY: Myers' *History of Rome*. LITERATURE: Bender's *Roman Literature*.

WEDNESDAY, APRIL 4TH:—2 TO 5 P.M.

Examiners..... .... { A. JUDSON EATON, PH.D. / JOHN L. DAY, B.A.

I.

Eight questions only to be answered in Group I. Numbers 5 and 9 are compulsory.]

1. An account of the early inhabitants and of the geographical divisions of Italy.

2. Under what circumstances were consuls, censors, the Decemviri, military tribunes, the Triumviri, first elected or appointed? Give dates.

3. (*a*) A description of the "wars for the mastery of Italy" from 343-272 B.C. (*b*) Write a note on the Colonies of Rome.

4. In what connection do these names appear in Roman History?—Cincinnatus, Verres, Longinus, Aëtius, C. Duillius, Alaric.

5. Causes, events, and results of the First Punic War.

6. Describe the battle of Cannae. In what respects was the policy of Q. Fabius Maximus commendable in the second Punic War?

7. Between whom, when, and with what results were the following battles fought: Châlons, Thapsus, Cynoscephalae, Ecnomus, Beneventum?

8. The character of (*a*) Iulius Caesar, of (*b*) Hannibal, and of (*c*) Tiberius.

9. Outline the reign of Augustus. Compare the extent of the Roman Empire at his death with that under Trajan.

10. What were the causes which led to the Fall of the Roman Empire? Compare the social and literary condition of Rome under Augustus with that under Marcus Aurelius.

11. Give a list of the Emperors (with dates of their reigns) from Augustus to Marcus Aurelius.

12. Mention the various occasions on which Rome has been attacked by foreigners. Dates.

II.

(*a*) What are the characteristics of the Golden Age of Roman Literature?

(*b*) Cornelius Nepos—what is known of him? What criticism would you give of his style and character as an historian?

(*c*) What place and influence did Lucretius possess among the Roman litterati?

(*d*) A short account of the Lyric poets of the period, with the names of their works.

(*e*) What attention did philosophy receive at Rome during the Golden Age?

INTERMEDIATE EXAMINATION.

LATIN. { LIVY, BOOK XXI.
HORACE, EPISTLES, BOOK I., 1-6.

WEDNESDAY, APRIL 4TH:—MORNING, 9 TO 12.

Examiners, ... { A. JUDSON EATON, PH.D.
W. CROCKET, M.A.

Assistant Examiner, ... JOHN L. DAY, B.A.

A.—LIVY, BK. XXI.

1. Translate:

Dum ea Romani parant consultantque, iam Saguntum summa vi oppugnabatur. Civitas ea longe opulentissima ultra Hiberum fuit, sita passus mille ferme a mari. Oriundi a Zacyntho insula dicuntur, mixtique etiam ab Ardea Rutulorum quidam generis; ceterum in tantas brevi creverant opes seu maritimis seu terrestribus fructibus seu multitudinis incremento seu disciplinae sanctitate, qua fidem socialem usque ad perniciem suam coluerunt.

(*b*) Hannibal cum recensuisset omnium gentium auxilia, Gades profectus Herculi vota exsolvit, novisque se obligat votis, si cetera prospera evenissent. Inde partiens curas simul *in* inferendum atque arcendum bellum, ne, dum ipse terrestri per Hispaniam Galliasque itinere Italiam peteret nuda apertaque Romanis Africa ab Sicilia esset, valido praesidio firmare eam statuit; pro eo supplementum ipse ex Africa maxime iaculatorum, levium armis, petiit, ut Afri in Hispania, Hispani in Africa, melior procul ab domo futurus uterque miles, velut mutuis pignoribus obligati, stipendia facerent.

(*c*) "Si quem animum in alienae sortis exemplo paulo ante habuistis, eundem nox in aestimanda fortuna vestra habueritis, vicimus, milites; neque enim spectaculum modo illud, sed quaedam veluti imago vestrae condicionis erat. Ac nescio, an maiora vincula maioresque necessitates vobis quam captivis vestris fortuna circumdederit. Dextra laevaque duo maria claudunt, nullum ne ad effugium quidem navem habentes; circa Padus amnis, maior (Padus) ac violentior Rhodano, ab tergo Alpes urgent, vix integris vobis ac vigentibus transitae.

2. (*a*) *Dum parant*: remark on the use of the tense and mood after *dum*. (*b*) Where was Saguntum situated, and by whom founded? What is the origin of its name? Why was it besieged by Hannibal? Describe the siege. (*c*) Describe the *vinea*, and explain why it was so called. (*d*) *procul muro*: remark on this construction.

3. (*a*) Explain the subjunctives in the second passage.

(*b*) Give the principal parts of *partiens, creverant*.

(*c*) Explain the construction of *levium armis*, and give the usual phrase.

(*d*) By whom and under what circumstances were the words of the third extract spoken?

4. Translate, and explain grammatical construction of italicized words:

(1) Poenis indignantibus, quod superbe averaque *crederent imperitatum victis* esse. (2) Angebant *ingentis spiritus* virum *Sicilia Sardiniaque amissae*. (3) Itaque haud facile *discerneres*, utrum imperatore an exercitui carior esset. (4) *fessum* militem proeliis *habebat*. (5) Mediis campis *Insulae* nomen inditum. (6) In eos versa peditum haud dubium fecit, quin, nisi firmata extrema agminis *fuissent*, ingens in eo saltu *accipienda* clades *fuerit*. (7) *Is* pavor perculit Romanos. (8) Captas naves *Messanum in portum* deduxerunt. (9) Ad supplicium depoposcerunt me ducem primum, deinde vos omnes, qui Saguntum *oppugnassetis; deditos* ultimis cruciatibus *affecturi fuerunt*. (10) Ubi vero *dimicarent*, is habitus animorum eorum, ut non vincentium magis quam bene morientium fortuna laudaretur.

5. Define the following terms, giving derivation when possible: *praerogativa*, *praetorium*, *obsidio* and *oppugnatio* (distinguish), *contio*, *catapulta*, *caementa*, *supplicatio*, *coloniae*, *anfractus*, *promunturium*, *equites frenatos infrenatosque*, *bruma*.

6. (*a*) Write out, as nearly as possible in the words of Livy, some scene or speech (in part) of the twenty-first book. (*b*) Turn extract (*c*) into Indirect Narration.

B.—Horace, Epistles, Bk. I.

7. Translate:

(*a*)

Nam cur
quae laedunt oculum festinas demere; si quid
est animum, differs curandi tempus in annum?
Dimidium facti qui coepit habet: sapere aude:
incipe. Qui recte vivendi prorogat horam,
rusticus exspectat dum defluat amnis; at ille
labitur et labetur in omne volubilis aevum.

(*b*)

Isne tibi melius suadet qui rem facias, rem,
si possis, recte, si non, quocumque modo rem,
ut propius spectes lacrimosa poemata Pupi,
an qui Fortunae te responsare superbae
liberum et erectum praesens hortatur et aptat?

(*c*)

I nunc, argentum et marmor vetus aeraque et artes
suspice, cum gemmis Tyrios mirare colores;
gaude quod spectant oculi te mille loquentum;
gnavus mane forum et vespertinus pete tectum,

ne plus frumenti dotalibus emetat agris
Mutus est—indignum, quod sit peioribus ortus,—
hic tibi sit potius quam tu mirabilis illi.

8. (*a*) *est animum:* give the principal parts of *est*, and inflect it in the present indicative. (*b*) *qui rem facias:* supply the ellipsis. (*c*) *responsare .....hortatur et aptat:* what constructions do *hortatur* and *aptat* regularly take in prose? How do you account for the infinitive here? (*d*) *indignum, quod sit ortus:* explain the case of *indignum*, and the mood of *sit*.

9. What is the connection in thought of extract (*c*) with the context? What are the lessons that the poet would inculcate by this epistle? Give an outline of the argument.

10. (*a*) Write both the *vocalic* and *syllabic* quantities in the following words: *personet, prohibere, mitescere, dolis, respicientis, fastidire, terrarum, admirari, numerus, dimidium*. Account for the quantity where you can. Scan the lines of extract (*b*).

11. Write briefly on any *three* of the following topics:

(1) The Life of Horace. (2) Questions discussed in the Epistles of Horace. (3) Comparison between Horace and Virgil. (4) Livy, his life and writings. (5) The language and style of Livy. (6) The Route of Hannibal across the Alps.

INTERMEDIATE EXAMINATION.

LATIN COMPOSITION AND TRANSLATION AT SIGHT.

WEDNESDAY, 4TH APRIL :—AFTERNOON, 2 to 5.

Examiners, ... { A. JUDSON EATON, PH.D. / W. CROCKET, M.A.

Assistant Examiner, ... JOHN L. DAY, B.A.

1. Translate into English :—

SICILIA DESERTA A POENIS

Atque ille, cum ei multitudo maior quam Numidarum procul visa et clamor Romanus haudquaquam ignotus ad aures accidisset, priusquam ad eum tumultum veniret, cavessit fugam: per aversam portam emissus adsumpto comite Epicyde cum paucis ad mare pervenit, nactique opportune parvum navigium relicta hostibus Sicilia, de qua per tot annos certatum erat, in Africam traiecerunt. Alia multitudo Poenorum Siculorumque ne temptato quidem certamine cum caeci in fugam ruerent clausique exitus essent, circa portas caesa. Oppido recepto Laevinus, qui capita rerum Agrigenti erant, virgis caesos securi percussit, ceteros praedamque vendidit, omnem pecuniam Romam misit. Fama Agrigentinorum cladis Siciliam cum pervasisset, omnia repente ad Romanos inclinaverunt: prodita brevi sunt viginti oppida, sex vi capta, voluntaria deditione in fidem venerunt ad

quadraginta. Quarum civitatium principibus cum pro cuiusque merito consul pretia poenasque exsolvisset, coegissetque Siculos positis tandem armis ad agrum colendum animos convertere, ut esset non incolarum modo alimentis frugifera insula sed urbis Romae atque Italiae—id quod multis saepe tempestatibus tecerat—annonam levaret, ab Agathyrna inconditam multitudinem secum in Italiam transvexit. Quattuor milia hominum erant, mixti ex omni colluvione exsules obaerati capitalia ausi plerique et cum in civitatibus suis ac sub legibus vixerant, et postquam eos ex variis causis fortuna similis conglobaverat Agathyrnam, per latrocinia ac rapinam tolerantes vitam.

2. Translate into Latin:—

Nevertheless, some on both sides had a little hope of peace. A soldier of Hannibal's, without the latter's knowledge, went to the Saguntine general's headquarters, and delivered a long speech, in which he told them that they would do well not to consider as lost what they should give up, but to count what should be left to them as so much gain, for everything belonged to the victor; their town was his, but Hannibal would generously give them a place to build a new town. "Suffer all this," he said, in closing, "although it is bitter and hard, rather than allow yourselves to be butchered and your wives and innocent children to be dragged away into slavery."

He gave them good counsel, but, as often happens, without winning anyone over to his side. Before an answer was given, even while he was yet speaking, Hannibal issued an order to his soldiers to make an assault over the ruins of a tower that had just fallen, and to put all the adult males to the sword. Whoever was spared became the booty of the soldiers.

THIRD YEAR.

LATIN.

PLINY, *Select Letters*. JUVENAL, *Satire* V.

WEDNESDAY, APRIL 4TH:—MORNING, 9 TO 12

Examiner, ... A. JUDSON EATON, PH.D.

1. Translate, with short notes on the words italicized:

a) Aurelia, ornata femina, signatura testamentum sumpserat pulcherrimas tunicas. Regulus cum venisset ad signandum, "rogo" inquit "has mihi *leges*." Aurelia ludere hominem putabat, ille serio instabat: *ne multa*, coegit mulierem aperire tabulas ac sibi tunicas *quas* erat induta legare: observavit scribentem, inspexit an scripsisset. Et Aurelia quidem vivit, ille tamen *istud* tamquam *morituram coegit*, et hic hereditates, hic legata, quasi mereatur, accipit.

(*b*) Quid agit Comum, tuae meaeque deliciae? quid *suburbanum* amoenissimum? quid illa porticus verna semper? quid *euripus viridis* et *gemmeus*? quid subiecta et *serviens* lacus? quid illa mollis et tamen *gestatio*? quid *cubicula* diurna nocturna? possident te et per vices partiun, tur an, ut solebas, intentione rei familiaris obeundae crebris excursionibus avocaris? Si te possident, felix beatusque; si minus, unus ex multis.

(*c*) Iam cinis, adhuc tamen rarus: respicio; densa caligo tergis immineba, quae nos torrentis modo infusa terrae sequebatur. "Deflectamus" inquam, "dum videmus ne in via strati comitantium turba in tenebris obteramur." Vix *consideramus*, et nox, non qualis inlunis aut nubila, sed qualis in locis clausis lumine extincto Tandem illa caligo tenuata quasi in fumum nebulamve discessit: mox dies verus, sol etiam effulsit, luridus tamen, qualis esse, cum deficit, solet.

(*d*) (*At sight*) Rogas ut agam Firmanorum publicam causam quod ego quamquam plurimis occupationibus distentus, adnitar. Cupio enim et ornatissimam coloniam advocationis officio et te gratissimo tibi munere obstringere. Nam cum familiaritatem nostram, ut soles praedicare, ad praesidium ornamentumque tibi sumpseris, nihil est quod negare debeam praesertim pro patria petenti. Quid enim precibus aut honestius piis aut efficacius amantis? Proinde Firmanis tuis ac iam potius nostris obliga fidem meam; quos labore et studio meo dignos cum splendor ipsorum tum hoc maxime pollicetur, quod credibile est optimos esse inter quos tu talis moreris Vale.

(*e*) Expende Hannibalem; quot libras in duce summo
invenies? hic est quem non capit Africa Mauro
percussa Oceano Niloque admota tepenti,
rursus ad Aethiopum populos altosque elephantos.
Additur imperiis Hispania: Pyrenaeum
transilit. Opposuit natura Alpemque nivemque:
diducit scopulos et *montem rumpit aceto*.
Iam tenet Italiam: tamen ultra pergere tendit:
'Actum,' inquit, "nihil est, nisit Poeno milite portas
frangamus et media vexillum pono *Subura*."
(O qualis facies et quali digna tabella,
cum Gaetula ducem portaret belua luscum!)
exitus ergo quis est? O gloria! vincitur idem
nempe et in exilium praeceps fugit, atque ibi magnus
mirandusque *cliens sedet* ad praetoria regis,
donec *Bithyno* libeat vigilare tyranno.
Finem animae, quae res humanas miscuit olim,
non gladii, non saxa dabunt, nec tela: sed ille
Cannarum vindex et tanti sanguinis ultor,
anulus. I, demens, et saevas curre per Alpes,
ut pueris placeas et declamatio fias!

2. Write short notes on: *illum Homericum ἀνεπιστροφή: praevaricatio; genua incerare; caballus; index: turba Remi; Capreae: egregii equites;* Roman Toleration in the time of Pliny; Verginius Rufus; *Antoni gladios potuit contemnere, si sic omnia dixisset: O fortunatam natam me consule Romam; exuviae; aplustre; induperator.*

3. Translate into Latin:

(*a*) Do not desert me in this sad calamity.

(*b*) We ought to love our friends equally with ourselves.

(*c*) As the shades of evening gathered, the brightness of the flames became more striking. But to calm the panic of those around him, the philosopher constantly assured them, that they arose from cottages on the slope, which the alarmed rustics had abandoned. He then took his customary brief night's rest; but his attendants were not so easily tranquillized, and as night advanced, the continued fall of ashes convinced them that delay would make escape impossible. They roused their master, and hastily debated how to proceed. To protect themselves from the thickening cinders, they tied cushions to their heads, and sought the coast in hopes of finding vessels to take them off.

B.A. ORDINARY EXAMINATION.

WEDNESDAY, APRIL 4TH:—MORNING, 9 TO 12.

LATIN.— { TACITUS.—ANNALS, BOOK I.
JUVENAL.—SATIRES, VIII. and XIII.

Examiners, ... { REV. GEORGE CORNISH, M.A., LL.D.
PROF. CROCKET, M.A.

1. Translate:—

(A.) Postremo deserunt tribunal, ut quis praetorianorum militum amico rumve Caesaris occurreret, manus intentantes, causam discordiae et initium armorum, maxime infensi Cn. Lentulo, quod is ante alios aetate et gloria belli firmare Drusum credebatur et illa militiae flagitia primus aspernari. nec multo post digredientem cum Caesare ac provisu periculi hiberna castra repetentem circumsistunt, rogitantes quo pergeret, ad imperatorem an ad patres, ut illic quoque commodis legionum adversaretur; simul ingruunt, saxa iaciunt, iamque lapidis ictu cruentus et exitii certus adversu multitudinis vere quae Druso advenerat protectus est.

B. Idem annus novas caerimonias accepit addito sodalium Augustalium sacerdotio, ut quondam Titus Tatius retinendis Sabinorum sacris sodales Titios instituerat. sorte ducti e primoribus civitatis unus et viginti: Tiberius Drususque et Claudius et Germanicus adiciuntur. ludos Augustales nunc primum coeptos turbavit discordia ex certamine histrionum. indul-

serat ei ludicro Augustus, dum Maecenati obtemperat effuso in amorem Bathylli; neque ipse abhorrebat talibus studiis, et civile rebatur miscer voluptatibus vulgi. alia Tiberio morum via: sed populum per tot annos molliter habitum nondum audebat ad duriora vertere.

(C.) Conciti per haec non modo Cherusci sed conterminae gentes, tractus ique in partis Inguiomerus Arminii patruus, veteri apud Romanos auctoritate unde maior Caesari metus. et ne bellum mole una ingrueret, Caecinam cum quadraginta cohortibus Romanis distrahendo hosti per Bructeros ad flumen Amisiam mittit, equitem Pedo praefectus finibus Frisiorum ducit pse inpositas navibus quattuor legiones per lacus vexit; simulque pedea eques classis apud praedictum amnem convenere. Chauci cum auxiliis pollicerentur, in commilitium adsciti sunt. Bructeros sua urentis expedita cum manu L. Stertinius missu Germanici fudit; interque caedem et praedam repperit undevicensimae legionis aquilam cum Varo amissam. ductum inde agmen ad ultimos Bructerorum, quantumque Amisiam et Lupiam amnes inter vastatum, haud procul Teutoburgiensi saltu, in quo reliquae Vari legionumque insepultae dicebantur.

2. (*a*) In ext. (A) (1) explain the mood of *occurreret*. (2) *Causam*,—what use of the acc.? (3) rogitantes,—* * adversaretur:—turn into the *Orat. Recta*, and state the rules for so doing. (*b*) Ext. (B)—Write short notes, etymological and explanatory, on:—sodales, ludos, histrionum, talibus studiis,—what case, and why? (*c*) Ext. (C)—Arminius:—give the modern name. Per lacus:—Modern name, and also of Amisia, Luppia, Teutoburgiensis saltus.

3. Translate the following, commenting on any peculiarities of construction:—(*a*) Privatam gratiam statim mereare, statim recipias. (*b*) Prospereque (putans) cessura, quæ—*qua*—pergerent. (*c*) Rector juveni, et ceteris periculorum præmiorumque ostentator. (*d*) Moderandos feminarum honores dictitans. (*e*) Comparatione deterrima sibi gloriam quæsivisse. (*f*) Tempora reipublicæ obtentui sumpta.

4. Write explanatory notes on:—(1) Populo et plebi quadringenties tricies quinquies dedit. (2) Nulla jam publica arma. (3) Quotus quisque reliquus qui rem publicam vidisset. (4) Nomen imperatoris * * * partum. (5) Dux olim theatralium operarum. (6) Apud vexillum tendentes. (7) Incendebat hæc fletu. (8) Luna visa languescere (what date?)

5. Derive and explain the meaning of:—potestas, potentia, dominatio exenbiae, cohortes, legio, pontifices, manipuli, municipium, vexillum, vexiarii, porta decumana.

6. Translate, Juvenal Satt. VIII. and XIII.:—

(*a*) Praeconem, Chaerippe, tuis circumspice pannis,
iamque tace. Furor est, post omnia perdere naulum.

Non idem gemitus olim nec vultus erat par
damnorum, sociis florentibus, et modo victis.
Plena domus tunc omnis et ingens stabat acervus
numorum Spartana chlamys, conchylia Coa,
et cum Parrhasii tabulis signisque Myronis
Phidiacum vivebat ebur, nec non Polycleti
multus ubique labor: rarae sine Mentore mensae.

Write short notes on *praeconem*, *nautlum*, *conchylia*.

(*b*) Praestare Neronem
securum valet haec aetas. Mitte Ostia, Caesar,
mitte; sed in magna legatum quaere popina:
invenies aliquo cum percussore iacentem,
permixtum nautis aut furibus aut fugitivis,
inter carnifices et fabros sandapilarum
et resupinati cessantia tympana Galli,
aequa ibi libertas, communia pocula, lectus
non alius cuiquam, nec mensa remotior ulli.

For *Ostia*, read *ostia*, and distinguish between them.

(*c*) Par Agamemnonidae crimen; sed causa facit rem
dissimilem. Quippe ille deis auctoribus ultor
patris erat caesi media inter pocula: sed nec
Electrae iugulo se polluit, aut Spartam
sanguine coniugii: nullis aconita propinquis
miscuit, in scena numquam cantavit Orestes;
Troica non scripsit. Quid enim Verginius armis
debuit ulcisci magis, aut cum Vindice Galba?
quid Nero tam saeva crudaque tyrannide fecit?

Explain briefly the legendary and historical references in (*c*).

(*d*) Nona aetas agitur, peioraque saecula ferri
temporibus, quorum sceleri non invenit ipsa
nomen et a nullo posuit Natura metallo;
nos hominum divumque fidem clamore ciemus,
quanto Faesidium laudat vocalis agentem
sportula? Dic, senior bulla dignissime, nescis
quas habeat Veneres aliena pecunia?

Sportula:—derive the word and explain the custom; also *bulla*.

(*e*) Credebant hoc grande nefas et morte piandum,
si iuvenis vetulo non adsurrexerat, et si
barbato cuicumque puer, licet ipse videret
plura domi fraga, et maiores glandis acervos.
Tam venerabile erat, praecedere quatuor annis,
primaque par adeo sacrae lanugo senectae!

Explain the use of the *Sing.* in *glandis*.

(*f*) Prandebat sibi quisque deus, nec turba deorum
talis, ut est hodie, contentaque sidera paucis
numinibus miserum urgebant Atlanta minori
pondere. Nondum aliquis sortitus triste profundi
imperium, aut Siculo torvus cum coniuge Pluton.
Nec rota, nec Furiae, nec saxum, aut vulturis atri
poena: sed infernis hilares sine regibus umbrae.
Improbitas illo fuit admirabilis aevo.

Comment on the above, with other passages, as illustrating the opinions of the poet on the current religion of the times.

7. Give the exact meaning and derivation, where you can, of the following:—stemmata, nanum, nobilis, viduas, ergastula, alapas, triscurria, arcana, gradivus, hostia, mobilis. Name derivations in English from any.

8. (*a*) What is the subject of Juvenal's Satire XIII? (*b*) Note the characteristics of the Satire of Juvenal. (*c*) Derive the word *Satire*.

B.A. ORDINARY EXAMINATION.

LATIN PROSE COMPOSITION

WEDNESDAY, APRIL 4TH:—2 TO 4 P.M.

Examiners,..... { REV. DR. CORNISH. / PROF. CROCKET, M.A.

Translate into Latin:—

(A)

And so Pyrrhus, having taken the colony of Fregellae by storm, (and) the *citadel*[1] of Praeneste having been surrendered to him, advanced so far that he was distant *only*[2] 18 miles from Rome. But since Coruncanius was defending the city itself, and Laevinus threatening him from *the rear*,[3] he determined to lead his army into *winter quarters*[4] at Tarentum. The winter is *famous*[5] for the embassy of C. Fabricius, who was sent by the Senate to *arrange*[6] that the prisoners should be *mutually restored*.[8] And to him Pyrrhus said that he would restore no Roman citizen whom he had taken, unless the Senate accepted the terms offered through Cineas. Let them, however (said he), return home in the month of December, for the sake of *keeping*[9] the Saturnalia, *provided only*[10] they gave their *word*[11] that they would return. And them, though they *tried*[12] in vain to *arrange*[13] a peace, the Senate ordered to *appear*[14] at Tarentum on the day *appointed*.[15]

1. arx. 2. tantum. 3. tergum. 4. hiberna. 5. insignis. 6. curo 7. *say*, by both. 8. restituo. 9. ago. 10. dummodo. 11. fides 12. conor. 13. compono. 14. compareo. 15. dico.

(B)

Ancus Marcius had a war with the Latins, and conquered them, and brought the people to Rome, and gave them the hill Aventinus to dwell on. He divided the lands of the conquered Latins amongst all the Romans; and he gave up the forests near the sea, which he had taken from the Latins, to be the public property of the Romans. He founded the colony at Ostia, by the mouth of the Tiber. He built a fortress on the hill Janiculum, and joined the hill to the city by a wooden bridge over the river. He secured the city in the low grounds between the hills by a great dyke, which was called the dyke of the Quirites; and he built a prison under the hill Saturnius, towards the Forum, because, as the people grew in numbers, offenders against the laws became more numerous also. At last king Ancus died, after a reign of three-and-twenty years.

THIRD YEAR HONOURS IN CLASSICS.

GREEK.

TUESDAY, APRIL 17TH :—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, M.A., LL.D.

1. Translate (with an explanatory note where you deem it necessary) :—

Apologia Socratis; *(a)* chap. III.

2. (1) *ταῦτα γὰρ ἑωρᾶτε* :—to what is the reference? (2) *οὐχ ὡς ἀτιμάζων* :—give the force of *ὡς*. (3) *μὲ γράψατο τὴν γραφὴν ταύτην* :—explain the syntax. (4) *περιεργάζεται* :—give the etymology and exact meaning of this verb.

3. *(a)* Give a short account of the composition of the Courts of Law at Athens, and sketch their general method

of procedure. (*b*) Explain carefully the terms :—*δίκη. ραφή. κλητῆρες. ἀνάκρισις. βάσανος, συνήγοροι, κλέψυδρα, ψῆφοι, ἀτιμία.*

4. Translate, ib., (*b*) chap. XVIII., 1–25.

5. (*a*) Comment on the construction of :—*οὐ γὰρ οἶομαι θεμιτὸν εἶναι * * * βλάπτεσθαι.* (*b*) *προσκείμενον τῇ πόλει * * * ὑπὸ μύωπός τινος* :—discuss the meaning of this.

6. Translate, ib., (*c*) chap. XXIX., 1–18.

7. (*a*) *ὅτι πόρρω * * τοῦ βίου* :—what use of the Genitive, give analogous instances. (*b*) *ἅτε βραδὺς ὤν* :—what does *ἅτε* imply, fact or supposition?

8. Translate, Crito, (*a*) chap. II.

τύχῃ ἀγαθῇ :—express this in Latin.

9. Translate, ib., (*b*) chap. X., 15–45.

Distinguish between *φαίνεται* and *δοκεῖ*, and give equivalent terms in Latin.

10. A short sketch of Plato.

THIRD YEAR HONOURS IN CLASSICS.

Greek.

Wednesday, April 18th :—Morning, 9 to 12.

Examiner,..... .....Rev. George Cornish, LL.D.

1. Translate, adding an explanatory note where you deem it necessary in any of the extt. given below :—

Thucydides, Book VI., Chaps. 47-48.

2. (*a*) Point out the correlative to *μὲν* at the opening of chap. 47. (*b*) Name the several clauses dependent on *ἦν γνώμη*. (*c*) *τῇ πόλει* :—construe. (*d*) *ἀπὸ τοῦ ἀδοκήτου* :—how may the ellipsis be supplied, and what is the import of the preposition. (*e*) *ἀπράκτως—ἀπράκτους* (Poppo) :—distinguish and give the note of the commentators on the former word. (*f*) *ἐφόρμησιν—ἐφόρμισιν* :—distinguish between these readings.

3. Translate carefully the following extt., adding an explanatory note, grammatical or general, where you see meet :—(*a*) *ὧν γὰρ ἐν ἀξιώματι ὑπὸ τῶν ἀστῶν, ταῖς ἐπιθυμίαις μείζοσιν ἢ κατὰ τὴν ὑπάρχουσαν ἐχρῆτο ἔς τε τὰς ἱπποτροφίας καὶ τὰς ἄλλας δαπάνας· ὅπερ καὶ καθεῖλεν ὕστερον τὴν τῶν Ἀθηναίων πόλιν οὐχ ἥκιστα.* (*b*) *καὶ ὁ στόλος οὐχ ἧσσον τόλμης τε θάμβει καὶ ὄψεως λαμπρότητι περιβόητος ἐγένετο ἢ στρατιᾶς πρὸς οὓς ἐπήεσαν ὑπερβολῇ, καὶ ὅτι μέγιστος ἤδη διάπλους ἀπὸ τῆς οἰκείας καὶ ἐπὶ μεγίστῃ ἔλπιδι τῶν μελλόντων πρὸς τὰ ὑπάρχοντα ἐπεχειρήθη.* (*c*) *καὶ τῷ μὲν Νικίᾳ προσδεχομένῳ ἦν τὰ*** ἑτέροιν καὶ ἀλογώτερα.*

4. Translate, Demosthenes :—(*a*) Olynthiacs.

(A) p. 10, *ὁ μὲν οὖν παρων καιρὸς * * * τῶν ὅλων πραγμάτων.* (B) p. 21 *καὶ μὴν εἴ τις * * * καὶ διελυσεν.* (Γ) *ἐὰν οὖν ἀλλὰ νῦν * * * ἀποθνήσκειν ἐᾷ.*

5. (*a*) *δειναὶ συγκρύψαι, φοβερὸν προσπολεμῆσαι* :—Explain the use of the Infinitive. (*b*) *οὐ μὴν ἀλλ' ἔγωγε* :—Explain the force of this expression and supply the ellipsis. (*c*) *ἑλοίμην * * * ἤ* :—Why is *μᾶλλον* omitted? (*d*) *θαυμάζω εἰ ἀντήρετε* :—Explain the use of *εἰ* and *ὅτι* to introduce substantival clauses, and show how the former is used in Attic Greek.

6. Explain the metaphors, and give the literal signification of :—*ἐκνενευρισμένοι, προσθήκης..τιθασεύουσι, χειρωθεὶς, ἀφορμάς, ὑποστείλασθαι, πεφηνάκεσαν, ἀνεχαίτισε. συγκεκροτημένοι προπέπτωται, ἤνθησεν, φωρᾶται, καταρρεῖ.*

7. Explain the geographical situation of Olynthus, and set forth its political importance.

8. Translate :—Herodotus, Bk. VII., chaps. 54 and 143.

9. (*a*) Give an account of the dialect used by Herodotus, and turn the following words into the common dialect :—*ὦν, ποιέει, ἑωυτοῦ, ἀπίκατο, ὅτεῳ, ἀληθέα, πλώοντας, τριηχέως, θύρῃσι, νῆας, πείθεο, πλεῦνες, οἰκός.* Parse and give the literal meaning of the following words :—*κεχαραγμένον, ἐδονέετο, προσωρέγοντο, ἀνάρτημαι, ἐμπαλασσόμενοι.* (*c*) *παύσαι καταστρέψασθαι* :—Note this rare construction of *αωπ*, and distinguish it from the common, construction with the Participle. (*d*) *ἀντὶ τοῦ ὦ θείη Σαλαμίς* :—Explain this use of the article.

THIRD YEAR HONOURS IN CLASSICS.

Greek Dramatists.

Friday, April 20th :—Morning, 9 to 12.

Examiner,.....Rev. George Cornish, M.A., LL.D.

1. Translate (with an explanatory note where you deem it necessary) :—

AEschylus, Prometheus Vinctus, (A) vss. 397–435 ; and (B) 887–906.

2. *(a)* Note varieties of reading and of punctuation in the above ext. *(b)* Explain the geographical references,

and give a short account of the geography of this Drama, pointing out mistakes. *(c)* Show the connection of the legend of Io with this drama. *(d)* What was the proverb referred to in vs. 887, and who was said to be its author? *(e)* A note on the etymology and meaning of *προυσελούμενον*.

3. Translate:—(D) Sophocles, Antigone, vss. 1115–1152.

4. *(a)* Write short explanatory notes on:—*πολυώνυμε, ἄγαλμα, κλυτὰν Ἰταλίαν, ὑπὲρ δ. πέτρας, Νυσαίων ὀρέων.* *(b)* Give the derivation and meaning of:—*νεάταν, παγκοίτας, ἔγκληρον, ἐπίχειρα, δειράδας, ἐπίφαντον, ποταινίου, τριπόλιστον* (note *variants*), *μέτοικος.* *(c)* *ἔψαυσας ἀλγεινοτάτας ἐμοὶ μερίμνας.—κεῖνος ἐπέγνω μανίαις ψαύων τὸν θεόν* (963):—Explain these constructions with *ψαύειν.* *(d)* *κεἴ τις ἦ σοφός* (710):—Explain this use of *εἰ* with the *Sub.* *(e)* vs. 71, *ἀλλ' ἴσθ' ὁποία—ὁποῖα—ὁποῖᾳ—σοι δοκεῖ*:—Distinguish between these variants Also Between *Βορέας* and *Βορεάς*, giving the *Gen.* of each.

5. Translate, Euripides, Medea:—(E) vss. 1081–1115.

6. In the above ext. (E) *(a)* note the metre used, and the topic of discussion. How does it illustrate the views attributed to Euripides, and his connection with the Sophists? *(b)* In vs. 1109:—*εἰ κυρήσας—κυρήσει—κυρῆσαι—κυρήσαι*:—note these variants.

7. Translate, (F) Theocritus:—*(a)* Idyll I., 15–28. *(b)* III., 1–14. *(c)* VI., 6-20.

8. (*a*) What interpretations have been suggested of I. vs. 51 :—*φατὶ πρὶν* * * * *καθίξῃ*? I. vs. 19 :—Note the variants :—*ἄλγε' ἀείδες*—*ἄλγε' ἄειδες*—*ἄλγεα εἴδες* (*b*) Derive and define the term *εἰδυλλιον*, and name writers of this kind of poetry in ancient and modern times. (*c*) Write an explanatory note on the metre of Theocritus.

9. (*a*) Parse, noting the dialect, the following words :—*αἶκα*, *χιμάρω*, *τεῖδε*, *ᾠδήκαντι*, *ὄρχως*, *ἦνθον*, *τιν*, *παρῆμεν*, *μέσφα*, *ἀπέσβης*, *λύκος*, *ποθόρησθα*. (*b*) Point out forms most akin to Latin forms.

THIRD YEAR HONOURS IN CLASSICS.

GENERAL PAPER.

MONDAY, APRIL 23RD :—MORNING, 9 TO 12.

Examiner,..... REV. GEORGE CORNISH, M.A., LL.D.

1. Give a general account of the nations of Asia Minor with whom the Greeks came into contact, and point out in what ways the Greeks were influenced by this intercourse.

2. (*a*) The Pan-Hellenic festivals; their uses and effects on the Greek mind. (*b*) After the year B. C. 560 new causes began to operate favouring union among the several States :—comment on and explain this statement of Grote's.

3 Describe, severally, and distinguish between Greek and Roman colonization.

4. Write a short account of the *Ionic Revolt*, and sketch its important political consequences.

5. The Reforms of Cleisthenes in the Athenian Constitution.

6. Trace the origin and growth of Dramatic Literature in Greece. Name with dates the leading dramatists. Derive, and distinguish between *τραγωδία* and *κωμῳδία*

7. Translate into Greek :—

(*a*) The poet was surprised at the daring of the philosopher.

(*b*) Before entering upon the war the King secured for himself all the allies he could find in Hellas,—a step which he deemed of the highest importance to success.

(*c*) What could have induced him with such inadequate resources to enter upon a campaign against so rich and powerful a State?

(*d*) They were in a state of uncertainty whether they should follow Cyrus or return to their homes, in such a pitiable plight were they in consequence of the hardships they had suffered.

(*e*) Without a trial or a hearing they passed sentence of death upon all the accused, and caused them to be put to death.

(*f*) At last the Athenians took the field in person, and marched forth to the succour of their allies with two thousand heavy-armed infantry and five hundred horse; and after winning a brilliant victory, they returned home again.

THIRD YEAR HONOURS.

THE GOLDEN AGE OF ROMAN LITERATURE.

CICERO AND LUCRETIUS.

THURSDAY, MARCH 29TH:—AFTERNOON, 2 TO 5.

Examiner,.....A. JUDSON EATON, PH. D.

1. Translate, and comment on:

CICERO, DE OFFICIIS, Book III. c. III. § 2; c. XI. § 47; and c. XXX., § 116.

2. Write brief explanatory notes on the following expressions:—(*a*) *numquam se minus otiosum esse quam cum otiosus;* (*b*) *convenienter naturae vivere;* (*c*) *dolus malus;* (*d*) *mancipatio;* (*e*) *quicum in tenebris mices;* (*f*) *orichalcum.*

3. (*a*) At what period in Cicero's life was the *De Officiis* written? Could you determine the probable time of its composition from any allusions in the work itself? (*b*) Briefly state the contents of the first and second books. (*c*) Give a general survey of Cicero's life and writings.

4. Translate, with short notes explaining any difficulties of construction or sense:

(*a*) Lucretius, I. 84-92; (*b*) II. 14-22; (*c*) III. 870-878; (*d*) 1003-1010.

5. (*a*) Give a short account of the life of Epicurus and the leading principles of Epicurean ethics. (*b*) State the arguments of Lucretius as

to the soul's composition. What beliefs are based on these arguments? (c) Explain the Atomic Theory of Democritus. Did the Epicureans hold this theory?

6. Explain the following expressions: (1) *materies opus est;* (2) *scepti ra potitus eadem aliis sopitu' quietest;* (3) *aeternas quoniam poenas in morte timendest;* (4) *fulgorem ab auro;* (5) *vestis splendorem purpureai* - (6) *prima virorum.*

7. Translate:

Laudat Africanum Panaetius, quod fuerit abstinens. Quid ni laudet? Sed in illo alia maiora. Laus abstinentiae non hominis est solum, sed etiam temporum illorum. Omni Macedonum gaza, quae fuit maxima, potitus est Paullus: tantum in aerarium pecuniae invexit, ut unius imperatoris praeda finem attulerit tributorum. At hic nihil domum suam praeter memoriam nominis sempiternam detulit. Imitatus patrem Africanus nihilo locupletior Karthagin eversa. Quid? qui eius collega fuit in censura L. Mummius, numquid copiosior, cum copiosissimam verbem funditus sustulisset? Italiam ornare quam domum suam maluit. Quamquam Italia ornata, domus ipsa mihi videtur ornatior. Nullum igitur vitium taetrius, ut eo, unde degressa est, referat se oratio, quam avaritia, praesertim in principibus rempublicam gubernantibus. Habere enim quaestui rempublicam non modo turpe est, sed sceleratum etiam et nefarium. Itaque quod A pollo Pythius oraculo edidit,

Spartam nulla re nisi avaritia perituram,

id videtur non solum Lacedaemoniis, sed etiam omnibus opulentis populis praedixisse. Nulla autem re conciliare facilius benevolentiam multitudinis possunt ei, qui reipublicae praesunt, quam abstinentia et continentia. Qui vero se populares volunt, ob eamque caussam aut agrariam rem temptant, ut possessores suis sedibus pellantur, aut pecunias creditas debitoribus condonandas putant, ei labefactant fundamenta reipublicae, concordiam primum, quae esse non potest, cum aliis adimuntur, aliis condonantur pecuniae, deinde aequitatem, qua e tollitur omnis, si habere suum cuique non licet. Id enim est proprium, ut supra dixi, civitatis atque urbis, ut sit libera et non sollicita suae rei cuiusque custodia.—Cic. Off. II. XXII. 76

8. Translate:

Cicero M. Varroni S.

Ex iis litteris, quas Atticus a te missas mihi legit, quid ageres et ubi esses cognovi, quando autem te visuri essemus nihil sane ex iisdem litteris potui suspicari. In spem tamen venio appropinquare tuum adventum: qui mihi utinam solacio sit! Etsi tot tantisque rebus urgemur, nullam ut levationem quisquam non stultissimus sperare debeat: sed tamen aut tu potes me aut ego te fortasse aliqua re iuvare. Scito enim me, postea

quam in urbem venerim, redisse cum veteribus amicis, id est, cum libris nostris, in gratiam: etsi non idcirco eorum usum dimiseram, quod iis succenserem, sed quod eorum me suppudebat. Videbar enim mihi, cum me in res turbulentissimas, infidelissimis sociis, demisissem, praeceptis illorum non satis paruisse. Ignoscunt mihi, revocant in consuetudinem pristinam teque, quod in eo permanseris, sapientiorem quam me dicunt fuisse. Quam ob rem, quoniam placatis iis utor, videor sperare debere, si te viderim, et ea, quae premant, et ea, quae impendeant, me facile transiturum. Quam ob rem sive in Tusculano sive in Cumano ad te placebit sive, quod minime velim, Romae, dum modo simul simus, perficiam profecto, ut id utrique nostrum commodissimum esse videatur.

THIRD YEAR HONOURS.

LATIN PROSE COMPOSITION.

MONDAY, APRIL 2ND :—MORNING, 9 TO 12.

Examiner,.....A. JUDSON EATON, PH D.

(A)

Manlius, in reply, accused them of base cowardice; "for," he said, "if they had listened to their brave fellow-soldier, Sempronius, when he ordered them to break away with him, they would never have been captured; did they have courage enough either to save themselves or defend their camp? Nay, rather, they hid themselves in their tents for two whole days, and waited for Hannibal to demand the surrender of themselves and all they had. They knew neither how to fight nor how to run away;—such citizens the state could not use." And so he moved that they should neither be ransomed from the state treasury, nor should money be loaned to any who might wish to save them.

(B)

Scipio meanwhile held councils of war in Massilia as to the proper mode of occupying the ferries of the Rhone, and was not induced to move even by the urgent messages that came from the leaders of the Celts. He distrusted their accounts, and he contented himself with detaching a weak Roman cavalry division to reconnoitre the left bank of the Rhone. This detachment found the whole enemy's army already transported to that bank, and occupied in bringing over the elephants, which alone remained on the right bank of the stream; and, after it had warmly engaged some Carthaginian squadrons in the district of Avignon, for the purpose of enabling it to complete its reconnaissance,—the first encounter of the Romans and Carthaginians in this war,—it hastily returned to report at headquarters. Scipio now started in utmost haste for Avignon: but when

he arrived there, even the Carthaginian cavalry that had been left behind to cover the passage of the elephants had already taken its departure three days ago, and nothing remained for the consul but to return with weary troops and little credit to Massilia, and to revile the "cowardly flight" of the Carthaginians.—Mommsen.

THIRD YEAR HONOURS.

THE GOLDEN AGE OF ROMAN LITERATURE.

CATULLUS, HORACE AND VIRGIL.

Saturday, April 7th:—Morning, 9 to 12.

Examiner,..... .....A. Judson Eaton, M.A., Ph.D.

1. Translate and comment on:—

(*a*) Suffenus iste, Vare, quem probe nosti,
Homost venustus et dicax et urbanus,
Idemque longe plurimos facit versus.
Peuto esse ego il milia aut decem aut plura
Perscripta, nec sic ut fit in libimpseston
Relata: chartae regiae novi libri,
Novi umbilici, lora rubra, membrana:
Derecta plumbo, et pumice omnia aequata.
Haec cum legas tu, bellus ille et urbanus
Suffenus unus caprimulgus aut fossor
Rursus videtur: tantum abhorret ac mutat.

(*b*) Paene insularum, Sirmio, insularumque
Ocelle, quascumque in liquentibus stagnis
Marique vasto fert uterque Neptunus,
Quam te libenter quamque laetus inviso,
Vix mi ipse credens Thyniam atque Bithynos
Liquisse campos et videre te in tuto!

(*c*) Laeva colum molli lana retinebat amictum,
Dextera tum leviter deducens fila supinis
Formabat digitis, tum prono in pollice torquens
Libratum tereti versabat turbine fusum,
Atque ita decerpens aequabat semper opus dens,
Laneaque aridulis haerebant morsa labellis,
Quae prius in levi fuerant extantia filo;
Ante pedes autem candentis mollia lanae
Vellera virgati custodibant calathisci.
Haec tum clarisona vellentes vellera voce

Talia divino fuderunt carmine fata,
Carmine, perfidiae quod post nulla arguet ae t

(*d*) Volteium mane Philippus
Vilia vendentem tunicato scruta popello
Occupat et salvere iubet prior. Ille Philippo
Excusare laborem et mercennaria vincla,
Quod non mane domum venisset, denique quod non
Providisset eum. "Sic ignovisse putato
Me tibi, si cenas hodie mecum." "Vt libet." "Ergo
Post nonam venies: nunc i, rem strenuus auge."
Vt ventum ad cenam est, dicenda tacenda locutus
Tandem dormitum dimittitur. Hic ubi saepe
Occultum visus decurrere piscis ad hamum,
Mane cliens et iam certus conviva, iubetur
Rura suburbana indictis comes ire Latinis.
Impositus mannis arvum caelumque Sabinum
Non cessat laudare. Videt ridetque Philippus,
Et sibi dum requiem, dum risus undique quaerit,
Dum septem donat sestertia, mutua septem
Promittit, persuadet uti mercetur agellum.

2. (*a*) Name the metres most commonly employed by Catullus, and write out the scheme of each. (*b*) Scan the last two lines of Exts. (*a*) and (*b*). (*c*) Determine the metres of the following lines:

(1) Passer deliciae meae puellae.

(2) Rhodumque nobilem horridamque Thraciam.

(3) Cecropiam solitam esse dapem dare Minotauro.

3. Explain any difficulties of construction or sense in the following passages:

(1) Phasellus ille, quem videtis, hospites,
Ait fuisse navium celerrimus.

(2) Iam ver egelidos refert tepores.

(3) Tintinant aures, gemina teguntur Lumina nocte.

(4) Candet ebur soliis, collucent pocula mensae.

(5) Quicquid delirant reges, plectuntur Achivi.

(6) Quo mihi fortunam, si non conceditur uti?

(7) Rure ego viventem, tu dicis in urbe beatum.

(8) Non cuivis homini contingit adire Corinthum.

4. (*a*) What is the probable date of the birth and death of Catullus? Discuss the evidence concerning the date of his birth. (*b*) Give Teuffel's characterization of Catullus.

5. Translate:

Iunonem interea Rex omnipotentis Olympi
Adloquitur, fulva pugnas de nube tuentem;
Quae iam finis erit, coniunx? quid denique restat?
Indigetem Aenean scis ipsa, et scire fateris,
Deberi caelo, fatisque ad sidera tolli.
Quid struis? aut qua spe gelidis in nubibus haeres?
Mortalin' decuit violari vulnere divum?
Aut ensem—quid enim sine te Iuturna valeret?
Ereptum reddi Turno, et vim crescere victis?
Desine iam tandem, precibusque inflectere nostris;
Nec te tantus edat tacitam dolor, et mihi curae
Saepe tuo dulci tristes ex ore recursent.
Ventum ad supremum est. Terris agitare vel undis
Troianos potuisti, infandum accendere bellum,
Deformare domum, et luctu miscere hymenaeos;
Ulterius temptare veto. Sic Iuppiter orsus;
Sic dea submisso contra Saturnia voltu:
Ista quidem quia nota mihi tua, magne, voluntas,
Iuppiter, et Turnum et terras invita reliqui;
Nec tu me aeria solam nunc sede videres
Digna indigna pati, sed flammis cincta sub ipsa
Starem acie traheremque inimica in proelia Teucros.
Iuturnam misero, fateor, succurrere fratri
Suasi, et pro vita maiora audere probavi;
Non ut tela tamen, non ut contenderet arcum;
Adiuro Stygii caput implacabile fontis,
Una superstitio superis quae reddita divis.

THIRD YEAR HONOURS.

THE GOLDEN AGE OF ROMAN LITERATURE.

TIBULLUS, PROPERTIUS, OVID.

WEDNESDAY, APRIL 11TH:—AFTERNOON, 2 TO 5.

Examiner.....A. JUDSON EATON, PH.D.

1. Translate and briefly explain:—

An te Cydne, canam, tacitis qui leniter undis
Caeruleus p'acidis per vada serpis aquis;
Quantus et aetherio contingens vertice nubes
Frigidus intonsos Taurus alat Cilicas?

Quid referam, ut volitet crebras intacta per urbes
Alba Palaestrino sancta columba Syro;
Utque maris vastum prospectet turribus aequor
Prima ratem ventis credere docta Tyros;
Qualis et, arentes cum findit Sirius agros,
Fertilis aestiva Nilus abundet aqua?

2. What do we learn of the life and character of Tibullus from the poets Horace and Ovid? Whom does Teuffel regard as the greatest lyric poet of the Romans? the greatest elegiac poet?

3. Translate:—

Damnatae noctes, et vos vada lenta paludes,
Et quaecumque meos implicat unda pedes,
Immatura licet, tamen huc non noxia veni:
Det Pater hic umbrae mollia iura meae.
Aut, si quis posita iudex sedet Aeacus urna,
In mea sortita vindicet ossa pila;
Assideant fratres, iuxta et Minoida sellam
Eumenidum intento turba severa foro.
Sisyphe, mole vaces, taceant Ixionis orbes,
Fallax Tantaleus corripiare liquor,
Cerberus et nullas hodie petat improbus umbras,
Et iaceat tacita laxa catena sera.

(*a*) Make such explanatory notes on the above passage as you may deem necessary. (*b*) Other readings are *hinc* (for *hic*, line 4), and *Tantaleo* (for *Tantaleus*): explain. (*c*) Describe the metre, and scan lines 10 and 11. (*d*) From what poem is the passage above taken? Describe it. (*e*) Give the leading characteristics of Propertius as a poet.

4. Translate with brief notes:

(*a*) Nondum etiam Ascraeos norunt mea carmina fontes,
Sed modo Permessi flumine lavit Amor.
(*b*) Callimachi Manes et Coi sacra Philetae,
In vestrum, quaeso, me sinite ire nemus.
(*c*) Et Veneris dominae volucres, mea turba, columbae
Tingunt Gorgones punica rostra lacu.
(*d*) Nam tibi nocturnis ad saxa ligata procellis,
Omnia detrito vincula fune cadunt.

(*c*) Pauper, at in terra, nil ubi flare potest.
What is the reading of the vulgate ?

5. Translate, with short notes on the words italicized :

(*a*) Argolici rediere duces : altaria fumant :
Ponitur ad patrios barbara praeda deos.
Grata ferunt nymphae pro salvis dona maritis :
Illi victa suis Troia fata canunt.
Mirantur iustique senes trepidaeque puellae :
Narrantis coniunx pendet ab ore viri.
Atque aliquis *posita* monstrat fera proelia *mensa*,
Pingit et exiguo Pergama tota *mero*.
Hac ibat Simois : hic est *Sigeia tellus* :
Hic steterat Priami regia celsa senis.
Illic *Aeacides*, illic tendebat Ulixes :
Hic lacer admissos terruit Hector equos.
Omnia namque tuo senior, te quaerere misso,
Retulerat nato Nestor, at *ille* mihi.
Retulit et ferro Rhesumque Dolonaque caesos ;
Utque sit hic somno proditus, ille dolo.

(*b*) Dissilit omne solum, penetratque in Tartara rimis
Lumen, et infernum terret cum coniuge regem ;
Et mare contrahitur, siccaeque est campus arenae
Quod modo pontus erat, quosque altum texerat aequor,
Exsistunt montes et sparsas Cycladas augent.
Ima petunt pisces, nec se super aequora curvi
Tollere consuetas audent delphines in auras.
Corpora phocarum summo resupina profundo
Exanimata natant : ipsum quoque Nerea fama est
Doridaque et natas tepidis latuisse sub antris.
Ter Neptunus aquis cum torvo brachia vultu
Exserere ausus erat ; ter non tulit aeris ignes.

6. What is the chief source of our knowledge of Ovid's life. Give a brief sketch of his life.

THIRD YEAR HONOURS.

THE GOLDEN AGE OF ROMAN LITERATURE.

THE HISTORIANS.

SATURDAY, APRIL 14TH:—MORNING, 9 TO 12.

Examiner.....A. JUDSON EATON, M.A., PH.D.

1. Name, in chronological order, the chief historical writers of the Golden Age of Roman Literature, with a very brief sketch of the life of each, and extant works. Discuss the defects and excellencies of the work of the leading historian of this period.

2. Translate:

(*a*) Longe alia mihi mens est, patres conscripti, cum res atque pericula nostra considero, et cum sententias nonnullorum ipse mecum reputo. Illi mihi disseruisse videntur de poena eorum, qui patriæ parentibus, aris atque focis suis bellum paravere: res autem monet cavere ab illis magis quam quid in illos statuamus consultare. Nam cetera malificia tum persequare, ubi facta sunt: hoc, nisi provideris ne accidat, ubi evenit, frustra iudicia implores: capta urbe nihil fit relicui victis. Set per deos inmortalis, vos ego adpello, qui semper domos villas, signa tabulas vostras pluris quam rem publicam fecistis: si ista, cuiuscumque modi sunt quae amplexamini, retinere, si voluptatibus vostris otium praebere voltis, expergiscimini aliquando et capessite rem publicam. Non agitur de vectigalibus neque de sociorum iniuriis: libertas et anima nostra in dubio est.

(*b*) Ad fidem deinde tam lætarum rerum effundi in vestibulo curiae iussit anulos aureos, qui tantus acervus fuit, ut metientibus supra tres modios explesse sint quidam auctores: fama tenuit, quae propior vero est, haud plus fuisse modio. Adiecit deinde verbis, quo maioris cladis indicium esset, neminem nisi equitem, atque eorum ipsorum primores, id gerere insigne. Summa fuit orationis, quo propius quem belli perficiendi sit, eo magis omni spe iuvandum Hannibalem esse; procul enim ab domo militiam esse, in media hostium terra; magnam vim frumenti et pecuniae absumi, et tot acies, ut hostium exercitus delesse, ita victoris etiam copias parte aliqua minuisse; mittendum igitur supplementum esse mittendam in stipendium pecuniam frumentumque tam bene meritis de nomine Punico militibus.

(*c*) In ea castra Dasius Altinius clam nocte cum tribus servis venit, promittens, si sibi praemio foret, se Arpos proditurum esse. Cum eam rem ad consilium retulisset Fabius, aliis "pro transfuga verberandus necandusque" videri, ancipitis animi communis hostis. Contra ea consulis pater Fabius, "Temporum oblitos homines in medio ardore belli, tamquam in pace, libera de quoque arbitria agere," diebat: "qui, cum illud potius agendum atque iis cogitandum sit, si quo modo fieri possit, ne qui socii a populo Romano desciscant, id non cogitent; documentum autem dicant statui oportere, si quis resipiscat, et antiquam societatem respiciat. Quod si abire Romanis liceat, redire ad eos non liceat; cui dubium esse, quin brevi deserta ab sociis Romana res foederibus Punicis omnia in Italia iuncta visura sit? Se tandem non eum esse, qui Altinio fidei quicquam censeat habendum, sed mediam consecuturum consilii viam. Neque eum pro hoste, neque pro socio in praesentia habitum, libera custodia haud procul a castris placere in aliqua fida civitate servari per belli tempus: perpetrato bello, tum consultandum, utrum defectio prior plus merita sit poenae, an hic reditus veniae."

(*d*) Singulari militum nostrorum virtuti consilia cuiusque mod. Gallorum occurrebant, ut est summae genus sollertiae atque ad omnia imitanda et efficienda quae ab quoque tradantur aptissimum Nam et laqueis falces avertebant, quas cum destinaverant tormentis introrsus reducebant; et aggerem cuniculis subtrahebant, eo scientius quod apud eos magnae sunt ferrariae, atque omne genus cuniculorum notum atque usitatum est. Totum autem murum ex omni parte turribus contabulaverant atque has coriis intexerant. Tum crebris diurnis nocturnisque eruptionibus aut aggeri ignem inferebant, aut milites occupatos in opere adoriebantur; et nostrarum turrium altitudinem, quantum has cotidianus agger expresserat, commissis suarum turrium malis adaequabant; et apertos cuniculos praeusta et praeacuta materia et pice fervefacta et maximi ponderis saxis morabantur moenibusque appropinquare prohibebant.

3. Write notes on: simulator, dissimulator—domi militiaeque—adepta libertate—municipia, coloniae—pecuniarum repetundarum reus—dolabra—navis actuaria—Poeninus mons—nuncupatio—duit—faxit—volones—macte virtute—mediusfidius—antesignani—pilleati—Tarentum—Achradina—ver sacrum—sacramentum—consul suffectus—sub corona venire—iusta acies—triumviri mensarii.

4. Derive: peregrinus, aerarium, plebs, praetor, promuntorium, stipendium, usurpo, populus (according to Mommsen); Mavors,

Minerva, Saguntum, Beneventum (what was its original name?) arbitrium, caelum.

5. Discuss the following MSS. readings (Livy):

(*a*) cum Mopsiani urbem excessissent.

(*b*) ipse circumspectans sollicitusque omnia incedebat.

(*c*) membra torrida gelu.

THIRD YEAR HONOURS.

ROMAN HISTORY AND GENERAL PAPER.

TUESDAY, APRIL 24TH:—MORNING, 9 TO 12.

Examiner,... .....A. JUDSON EATON, M.A., PH.D.

1. Give an account of (*a*) the Atomists and their doctrines, or (*b*) the Philosophy of Heracleitus.

2. What did the earliest thinkers mean by 'philosophy'? What seems to have been the distinction between *σοφία* and *φιλοσοφία*? What relation do the Sophists bear to the philosophers who preceded and followed them

3. Relate the myths of Phaethon, Ixion, Philemon and Baucis, Arachne, Persephone.

4. What was the origin of the Latin Alphabet?

5. Discuss the spelling of: *subiciundi, duellum, duumviri, relligione, mercennarium, cum* (*quom, quum*), *servus* (*servos*), *hiemps, Parilia* (*Palilia*), *accedo* (*adcedo*), *sodes, vin', homost, caelum* (*coelum*).

6. Explain the formation of the following compounds: *antea* (old *antidea*), *denuo, scilicet, prorsus, marmor, comes, peculium, munusculum, Theside calefacio.*

7. Discuss the derivation and meaning of: *Lares, Penates,* Εὐμένιδες *genius, Pegasides, retiarius, rarus, Tisiphone, quinquatrus, Nebrophonus, nefasti, sestertius, homoeomeria.*

8. Remark on the resemblance and distinction between Greeks and Italians.

9. Explain the terms *Roma Quadrata, cooptio, arx, capitolium, Comitia Centuriata, ager publicus.*

10. Name the *extraordinary* and *ordinary* magistrates of Rome. To which of these belonged the *imperium?* Define the term.

11. (*a*) When was the praetorship detached from the consulship? When was the praetor peregrinus first appointed, and what were his duties? (*b*) Who were the chief finance ministers at Rome

12. What were the numbers of the following officers at different periods of the republic: Praetors, Aediles, Tribunes, Quaestors? What was the mode of their election? At what age could each office be held, and what were its particular duties?

13. Give an account of the Lex Canuleia and the Agrarian Law of Spurius Cassius.

14. Explain carefully the causes and results, *either* of the expulsion of the Kings, *or* of the appointment of the Decemviri.

15. (*a*) What were the chief events (with dates) between the First and Second Punic Wars? (*b*) Why was it so important for the Carthaginians to hold Spain? (*c*) What Roman general besieged and captured New Carthage? Give the geographical position of this town and an account of its siege.

16. In what respect did the defeat of Hannibal show the greatness of Rome, and has her success been for the good of mankind?

17. Explain (*a*) the following expressions: *locare aliquid faciendum; deferre aliquid ad senatum; socii navales; lectisternium:* (*b*) the abbreviations D.D.D.; Q.B.F.F.Q.S.; S.D.P.

18. Explain as carefully as you can the use of the participles in the following expressions:—

(*a*) *cohortatus* milites docuit.

(*b*) itaque *convocatis* centurionibus milites certiores facit.

(*c*) Gallia est *divisa*.

(*d*) *maturato* opus est.

(*e*) aedem Castoris habuit *tuendam*.

19. What is the root from which the verb *sum* is derived? Show the formation of each form of the present indicative from this root, and compare it with the corresponding form of the verb εἰμί.

20. Explain the following grammatical terms and rhetorical figures, and illustrate by examples:—Hysteron Proteron, Prolepsis, Synesis, Chiasmus, Oxymoron, Ecthlipsis.

B. A. EXAMINATIONS FOR HONOURS IN CLASSICS.

Greek Poets.

Monday, April 2nd:—Morning, 9 to 12.

Examiner,.....Rev. George Cornish, M.A., LL.D.

1. Translate, with an explanatory note where you deem it necessary:—

Pindar, *(a)* Olymp. V. *(b)* Olymp. XIV.

2. *(a)* Give the meaning and etymology of the following:—*ἄωτον, ἀπήνας μοναμπυκία, ἀβρόν, κολλᾷ, δᾶμον, ἕκατι, κῶμος, ἄνα, μάσσον', καρταίποδα, ἐνδομάχας.* *(b)* Parse the following words:—*αὐδάσομεν, κεκαδμένον, διεδάσαντο, λέλογχεν, κακαγόρος, λαθέμεν, νᾶσος, γεγάκειν, μετάλλασεν, δίδοι, ἀνέδραμον, ἔσχεθε, ἐντί.*

3. *(a)* Write a short account of the life and social position of Pindar, dwelling on his characteristics as a poet. *(b)* Translate the following extracts, pointing out differences of interpretation in any:—(1) *ὁ μέγας δὲ κίνδυνος ἄναλκιν οὐ φῶτα λαμβάνει.* (2) *ῥοαὶ δ' ἄλλοτ' ἄλλαι εὐθυμιᾶν τε μετὰ καὶ πόνων ἐς ἄνδρας ἔβαν.* (3) *ξείνων δ' εὖ πρασσόντων ἔσαναν αὐτίκ' ἀγγελίαν ποτὶ γλυκεῖαν ἐσλοί.* (4) *ἀκίνδυνοι ἀρεταὶ οὔτε παρ' ἀνδράσιν οὔτ' ἐν ναυσὶ κοιλαις τίμιαι.* (5) *ἀγαθοὶ δὲ καὶ σοφοὶ κατὰ δαίμον' ἄνδρες ἐγένοντο.* (6) *ἄνευθε θεοῦ σεσιγαμένον οὐ σκαιότεροδν χρῆμ' ἕκαστον.* (7) *ἐκ θεοῦ δ' ἀνὴρ σοφαῖς ἀνθεῖ ἐσαεὶ πραπίδεσσιν.* (8) *ἄπονον δ' ἔλαβον χάρμα παῦροί τινες.* *(c)* What favourite doctrines of the poet are touched upon in any of the above extt.?

4. Translate :—

Hesiod, Works and Days, (*a*) vss. 205–220. (*b*) vss. 500–514.

5. (*a*) Comment on the meaning and object of this Poem. What approximate date may be assigned to Hesiod? (*b*) Give the meaning and etymology of the following words, noting cognate forms of any in Latin or English, or in both :—*ἀρείων, ἴρηξ, ἄφρων, ἑτέρηφι, νήπιος, λεσχη βουδόρα, πηγάδας, δυσηλεγέες, νήριτας.* (*c*) Write an explanatory note on the form and power of the Digamma, and illustrate from Latin and English.

6. Translate, Theocritus :—(*a*) Idyll I., 15–28. (*b*) III., 1–14. (*c*) VI., 6–20.

7. (*a*) What interpretations have been suggested of I. vss. 51 :—*φατὶ πρὶν * * * καθίξῃ*? I. vs. 19 :—Note the variants :—*ἄλγε' ἀείδες—ἄλγε' ἄειδες—ἄλγεα εἴδες.* (*b*) Derive and define the term *εἰδυλλιον*, and name writers of this kind of poetry in ancient and modern times. (*c*) Write an explanatory note on the metre of Theocritus.

8. (*a*) Parse, noting the dialect, the following words :—*αἴκα, χιμάρω, τεῖδε, ᾠδήκαντι, ὄρχως, ἦνθον, τιν, παρῆμεν, μέσφα, ἀπέσβης, λύκος, ποθόρησθα.* (*b*) Point out forms most akin to Latin forms.

B.A. EXAMINATION FOR HONOURS IN CLASSICS.

GREEK HISTORIANS.

WEDNESDAY, APRIL 9TH :—MORNING, 9 TO 12.

Examiner,..... .REV. GEORGE CORNISH, M.A., LL.D

1. Translate (adding an explanatory note where necessary in any of the extt. given below) :—

(A) Herodotus, Book IX., chaps. 84-85.

(B) Thucydides, *(a)* Book VI., chap. 83. *(b)* VII. chap. 74.

(C) Xenophon, Hellenics, Book II., chap. 2, §§ 18 to 23. inclusive.

2. *(a)* In ext. (A) explain *ἰρένας*, *τῇ ἀπεστύϊ*, for which latter there is a variant *ἀπεστοῖ*. *(b)* *πάντη συστρέφαντες καὶ πυκνώσαντες* (C. 18) : express in Latin. *ὑπήσειν τῆς ἀγνωμοσύνης* (4) :—Show the construction. (13) *ἀνεκώχευε* :—Show the formation of this word. *(c)* Explain the following :—*τὰ ὑακίνθια*, *κρησφύγετον*, *τὸν λόχον τὸν Πιτανήτην*, *γενομένης λέσχης*. *(d)* *ἐπιστάμενοι τὰ Δακεδαιμονίων φρονήματα*. *ὡς ἄλλα φρονεόντων καὶ ἄλλα λεγόντων* :—to what extent was this imputation of double-dealing on the part of the Lacedemonians justified ?

3. *(a)* In ext. (B) *καὶ ὑμῖν ταὐτὰ ξυμφέροντα* is Classen's reading ; is it better than the ordinary reading ? ib. *τῇ ἐγχειρήσει* :—Explain the form and the case. *(b)* *ἀπεφράγνυσαν* :—from what is this formed ? Cite a passage from the Antigone where the same verb is used.

4. Write explanatory notes on the following from

Hellenics, Book II. :—*(a)* ἀπὸ τῆς ὥρας ἐτρέφοντο (i. § 1) *(b)* ὅτι οὐ διέωσαν διὰ τῆς κόρης τὰς χεῖρας (*ib.* 8). *(c)* τῶν μακρῶν τειχῶν * * * ἑκατέρου (ii. § 15). *(d)* ἀπὸ συκοφαντίας ζῶντας (iii § 12). *(e)* κόθορνος ἐπικαλεῖται (ib. 31). (Illustrate from Aristophanes). *(f)* ἀποβλέπει ἐπ' ἀμφοτέρων—ἀμφότερον (*ib.*). (Discuss the meanings and the readings.) *(g)* ἐπὶ τὸν κωφὸν λιμένα (iv. § 31.)

5. Translate and explain the following military or naval terms:—(1) θέσθαι τὰ ὅπλα. (2) συμφράξαντες. (3) ἐπειδὴ ὥρμισαντο. (4) οἱ ἐπιβάται. (5) δύο λόχοι βοηθήσαντες. (6) τὰς δὲ λοιπὰς ὑπο τῷ τείχει ἀνείλκυσε. (7) τὰ πραῤῥύματα παραβάλων. (8) ἐπί μιᾶς τεταγμένοι. (9) ἵνα μὴ διέκπλουν διδοίεν. (10) κατὰ πόδας πλέοντες. (11) παρετάξαντο ἐν μετώπῳ. (12) ἡ Πάραλος.

6. Translate the following, commenting on the dialectic peculiarities:—Ἐῤῥει τὰ κᾶλα (al. τὰ καλά)· Μίνδαρος ἀπεσσούα. πεινῶντι τῶνδρες. Ἀπορίομες, τί χρὴ δρᾶν. Plutarch speaks of this despatch as γράμματα Λακωνικῶς φράζοντα:—why Λακωνικῶς?

B.A. EXAMINATION FOR HONOURS IN CLASSICS.

GREEK PROSE WRITERS.

MONDAY, APRIL 16TH:—MORNING, 9 TO 12.

Examiners,..... REV. GEORGE CORNISH, M.A., LL.D.

1. Translate, adding an explanatory note where you deem it necessary:—

(A) Demosthenes, De Corona, page 284–85:—Ἔσπερα μὲν γὰρ ἦν * * * δίκαιόν ξστιν ἡγεῖσθαι

2. *(d)* Comment on the rhetorical excellences of the above ext. and compare it with the narrative style of Aeschines. *(b)* *μεταξὺ δειπνοῦντες* :—explain the reference. *(c)* What points in the above ext. illustrate public life at Athens?

3. Translate, Aeschines Contra Ctesiphontem, §§ 234-35, inclusive.

4. *(a)* *τῶν Τριάκοντα* :—Name the two chief authorities for the events of the year of *The Anarchy* at Athens. *(b)* *πρὶν ἀκοῦσαι* :—What is the subject to this verb?

5. Explain the following *τοῖς δραπέταις ποσί. τὰ Διονύσια. ἀπογνώτω, καταγνώτω. ἐρανίζων στεφάνους. προξενίας εὑρημένοι. τραγῳδῶν ἀγωνιζομένων καινῶν. καθ' ἑκάστην πρυτανείαν.*

6. At what date was the suit of Aeschines against Ctesiphon instituted? How long time elapsed before the trial took place? State definitely the accusation which Aeschines brought against Ctesiphon, and also the three distinct grounds on which he based it. How was the court constituted by which the case was tried?

7. Translate :—

Aristotle, De Poetica, chap. xiii., §§ 5 to 8, inclusive. Translate and illustrate §§ 13-14 of Chap. iv., giving the derivation of *ἰαμβεῖον*. *(c)* Account for the unsatisfactory condition of the text of this treatise, and mention the theories held touching the history of the text as we have it.

8. Comment on *ὁ Εὐριπίδης τραγικώτατος. διὰ τὴν τῶν θεάτρων ἀσθενείαν.*

9. Translate :—

Plato, De Republica, Book II., chap. xvii., §§ B to E, *βουληθῇ γράψαι.*

10. Give an outline of Plato's system of education.

B.A. EXAMINATIONS FOR HONOURS IN CLASSICS.

LATIN POETS.

WEDNESDAY, APRIL 18TH:—MORNING, 9 TO 12.

Examiner,..... REV. GEORGE CORNISH, LL.D.

1. Translate (adding an explanatory note where you may deem it necessary on any peculiar form or construction in any of the extt.):—

Horace, Epp., Bk. I.:—

(*a*) Quod si me populus Romanus forte roget, cur
non, ut porticibus, sic iudiciis fruar isdem,
nec sequar aut fugiam, quæ diligit ipse vel odit:
olim quod vulpes aegroto cauta leoni
respondit, referam: Quia me vestigia terrent,
omnia te adversum spectantia, nulla retrorsum.

(*b*) Nestor componere lites
inter Peliden festinat et inter Atriden:
hunc amor, ira quidem communiter urit utrumque.
Quidquid delirant reges, plectuntur Achivi.
Seditione, dolis, scelere atque libidine et ira
Iliacos intra muros peccatur et extra.

(*c*) Vescere, sodes.
Iam satis est. At tu, quantum vis, tolle.
Benigne.
Non invisa feres pueris munuscula parvis.
Tam teneor dono, quam si dimittar onustus.
Ut libet: haec porcis hodie comedenda relinques.

(*d*) Tu mediastinus tacita prece rura petebas,
nunc urbem et ludos et balnea villicus optas:
me constare mihi scis, et discedere tristem,
quandocumque trahunt invisa negotia Romam.

(*e*) Ne vulgo narres, te sudavisse ferendo
Carmina, quae possint oculos auresque morari
Caesaris; oratus multa prece, nitere porro.
Vade, vale, cave ne titubes mandataque frangas.

2. Translate, Juvenal:—(*a*) Sat. VIII., vss. 259-268. (*b*) Sat. X., vss. 133-146 (Explain the form *Induperator*).

3. (1) Explain these social or political references in Sat. X.:—(*a*) Quos sportula fecit amicos. (*b*) Genua incerare deorum. (*c*) Scianus ducitur unco. (*d*) Verbosa et grandis epistola venit a Capraeis. (*e*) Egregios

equites. (*f*) Quinquatribus. (*g*) Iam dextra computat annos. (2) Ext. (*a*) Note the tense and mood of *laxabant*, *deceret*, *miraretur*, and explain the use of the Genitive in *legum* prima securis. (*b*) What variants occur in vss. 38, 42, 68, 155, 171

4. Translate, Persius, Satt. V. and VI., noting various readings or interpretations :—

(*a*) Verterit hunc dominus, momento turbinis exit
Marcus Dama. Papae! Marco spondente recusas
Credere tu nummos? Marco sub iudice palles?
Marcus dixit, ita est: assigna, Marce, tabellas.

(*b*) Disce, sed ira cadat naso rugosaque sanna.
Dum veteres avias tibi de pulmone revelio.
Non praetoris erat stultis dare tenuia rerum
Officia, atque usum rapidae permittere vitae
Sambucam citius caloni aptaveris alto.

(*c*) Sed cenam funeris heres
Negliget iratus, quod rem curtaveris; urnae
Ossa inodora dabit, seu spirent cinnama surdum,
Seu ceraso peccent casiae, nescire paratus.
Tune bona incolumis minuas? Et Bestius urget
Doctores Graios: "Ita fit, postquam sapere urbi
Cum pipere et palmis venit nostrum hoc maris expers,
Foenisecae crasso vitiarunt unguine pultes."

(*d*) Hæc miscere nefas; nec, cum sis cetera fossor,
Tres tantum ad numeros satyrum moveare Bathylli.
"Liber ego." Unde datum hoc sumis, tot subdite rebus?
An dominum ignoras, nisi quem vindicta relaxat?
I puer, et strigiles Crispini ad balnea defer,
Si increpuit, cessas nugator?

5. (*a*) Point out peculiarities of construction by Persius. (*b*) Whom did he take as his literary model? How would you account for his frequent obscurity? (*c*) Cite passages from these two satires of doubtful and disputed interpretation. (*d*) *Cor* Enni, etc.:—Explain this use of the word *cor*, and the reference to Ennius.

6. Write explanatory notes on :—Verterit. Dama. Sambucam. Nescire paratus. Maris expers:—What different interpretations? Satyrum Bathylli. Lubrica Coa. Derive and give the exact meaning of the term *Satira*.

7. Translate :— Plautus, Aulularia, (*a*) Act IV., Sc. 8; and (*b*) Act II Sc. 2, vss. 14-29 (Ed. Tauchnitz).

In the above extract derive cassam, inhiat, zamiam, polypos, harpagatum, ilico, mendicabula.

8. Translate :—Terence, Adelphi, Act II., Sc. 4, vss. 7-23. (Ed. Tauchnitz). Point out ellipses occurring in this extract and supply them.

9. (*a*) Write down the schemes of the *Iambic Senarius* and of the *Trochaic Septenarius* of Latin Comedy, and show how they differed from the corresponding metres as used by Aristophanes. (*b*) Describe the practice designated by the verb *contaminare*.

B.A. EXAMINATION FOR HONOURS.

LATIN PROSE WRITERS.

FRIDAY, APRIL 20TH :—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, M.A., LL.D.

1. Translate the following extracts into English, adding a brief comment where any peculiar form or construction seems to you to require it :—

Livy, Bk. XXI., chap. 58, down to " milites iuberet."

2. Write explanatory notes on the following :—(1) Ne Latinas indiceret, Iovi Latiari solemne sacrum in monte faceret. (2) Ob cetera prodigia libros adire decemviri iussi. (3) Cum iam in orbem pugnarent. (4) Socium nominis Latini. (5) Socii navales. (6) Ad rupem muniendam. (7) Occidente iam sidere Vergiliarum. (8) Quadrato agmine. (9) Cum Gallis tumultuatum.

3. (*a*) Give an account of the writings of Livy, stating what have been lost and what have come down to us. (*b*) What authorities had he at command for the history of the Second Punic War? How did he use them.

4. Translate the following extracts from Tacitus Annals, Bk. II., adding an explanatory note where you see fit :—

(*a*) Nam Phraates quamquam depulisset exercitus ducesque Romanos, cuncta venerantium officia ad Augustum verterat partemque prolis firmandae amicitiae miserat, haud perinde nostri metu quam fidei popularium diffisus.

(*b*) Accendebat dedignantes et ipse diversus a maiorum institutis, raro venatu, segni equorum cura ; quotiens per urbes incederet, lecticae gestamine fastuque erga patrias epulas, inridebantur et Graeci comites ac vilissima utensilium anulo clausa, sed prompti aditus, obvia comitas, ignotae Parthis virtutes, nova vitia ; et quia ipsorum moribus aliena, perinde odium pravis et honestis.

(*c*) Postremo deligunt locum flumine et silvis clausum, arta intus planitie et umida: silvas quoque profunda palus ambibat, nisi quod latus unum Angrivarii lato aggere extulerant, quo a Cheruscis dirimerentur. hic pedes adstitit: equitem propinquis lucis texere. ut ingressis silvam legionibus a tergo foret.

(*d*) Distinctos senatus et equitum census, non quia diversi natura, sed ut, sicut locis ordinibus dignationibus antistent, ita iis quae ad reqniem animi aut salubritatem corporum parentur, nisi forte clarissimo cuique plures curas, maiora pericula subeunda, delenimentis curarum et periculorum carendum esse. facilem adsensum Gallo sub nominibus honestis confessio vitiorum et similitudo audientium dedit. adiecerat et Tiberius non id tempus censurae nec, si quid in moribus labaret, defuturum corrigendi auctorem.

(*e*) Contra veterani ordinibus ac subsidiis instructi: hinc militum, inde locorum asperitas: sed non animus, non spes, ne tela quidem nisi agrestia aut ad subitum usum properata. ut venere in manus, non ultra dubitatum quam dum Romanae cohortes in aequum eniterentur: vertunt terga Cilices, seque castello claudunt.

(*f*) Classem quippe et avia Oceani quaesita, ne quis venientibus occurreret, ne pulsos premeret: sed ubi miscuerint manus, inane victis ventorum remorumve subsidium. meminissent modo avaritiae, crudelitatis, superbiae: aliud sibi reliquum quam tenere libertatem an mori ante servitium?

5. Translate, Tacitus Histories, Chap. 80.

6. (*a*) *Epraetorianis*:—Supply the ellipsis. (*b*) *Familiae Senatorum*:—who were these? Show how Rome in the long run suffered from this class of men. (*c*) Comment on the following:—(1) Falsi Neronis. (2) Plenum exiliis mare. (3) Primores equitum. (4) Clientes libertique. (5) Ubique hasta et sector. (6) Haruspex Umbricius. (7) Sed manipuli quoque e gregarius miles viatica sua et balteos phalerasque, insignia armorut argento decora, loco pecuniae tradebant, instinctu et impetu et avaritiat. (8) Cum aia Petrina.

7. Translate Cicero, de Officiis, Bk. III., chap. 9, from "Fimbriam consularem" to end.

8. (1) Explain the phrases *quicum* * * * *mices. Sponsionem fecisset.* (2) With what object was this treatise written? What is its subject, and how treated? (3) Write short biographical notes on:—Antipater Stoicus; Chrysippus Laelius; Zeno. (4) Distinguish between the different schools of Philosophy and Philosophers referred to by Cicero in this treatise.

9. Translate Cicero, De Imp. Cn. Pomp., chap. 12, §§ 34-36.

10. What were the political circumstances in which this oration was delivered?

B.A. EXAMINATION FOR HONOURS IN CLASSICS.

GREEK PROSE COMPOSITION.

WEDNESDAY, APRIL 10TH :—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, M.A., LL.D

Translate into Greek (accented) :—

On this, the herald of the Thirty commanded the police to arrest Theramenes and they having entered with their attendants, Satyrus, the most reckless and profligate of hem, leading them, Critias said : 'We deliver over to you. Theramenes, who is before you, condemned according to the law ; and do you, police, apprehend and conduct him to prison, and complete your duty.' On these words, Satyrus dragged him from the altar—the attendants also drag, and him away. Theramenes, as might have been expected invoked gods and men to look down on what was passing ; but the senate maintained silence, seeing that the men at the bar were also like Satyrus, and that the [space] in front of the senate-house was full of guards—aware, also, that those present had daggers with them. They conducted the man through the Agora, protesting against his treatment in very loud accents. One saying of his is recorded. When Satyrus told him that he would suffer, if he were not silent, he said : 'And if I am silent, shall I not still suffer ?' And when he began to drink the hemlock, constrained to die, they report that he said, as he dashed away the last drops, This to the health of the handsome Critias !

B.A. EXAMINATIONS FOR HONOURS IN CLASSICS.

LATIN PROSE COMPOSITION.

TUESDAY, APRIL 10TH:—AFTERNOON, 2 TO 5.

Examiner,.....REV. GEORGE CORNISH, M.A., LL D.

Translate into Latin:—

The nephew of Marius, the husband of the daughter of Cinna, who was yet the great aristocrat, sprung of the race of the gods, counting Venus amongst his ancestors, had for many years been directing his unparalleled powers of captivation to the headless party. He had lived amongst the grimy proletarians in the Suburra until they made him high pontiff of the national religion, when he moved to the official residence, the Regia, close by the Temple of Vesta in the Forum. As ædile, he had given gladiatorial games in which every combatant was cased in silver harness. He had reared again the demolished monuments of Marius, and in a funeral oration over his aunt, had flung a mist of divinity and romance over the people, and himself their friend. As prætor he had astonished the Optimates by his masterful moderation in restraining the mob of the Forum, which nearly worshipped him. He had exhausted his resources in liberality, and he could not go to his province, Spain, until an arrangement with the millionaire Crassus had enabled him to satisfy his creditors But once in Spain he had exhibited extraordinary qualities; he led his army victoriously through unconquered tribes to the Atlantic; with striking humanity, he abolished the remnants of human sacrifices which were the heritage from the Carthaginian occupation; and returning with a princely fortune, he had yet contrived to recall the traditions of Sertorius and to make of the provincials friends who ever after turned to him as their patron. This remarkable man in the year 60 B.C. came home for the consular elections, relinquished his claim to a triumph, and was returned as consul for 59 B.C., the recognized leader of the popular party. It was with Cæsar thus at the outset of his career that Pompeius, the foremost man in Rome, entered into a political union, in which was included his old rival Crassus, in order to accomplish his immediate ends.

B.A. EXAMINATION FOR HONOURS IN CLASSICS.

HISTORY OF GREECE AND ROME.

MONDAY, APRIL 23RD:—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, M.A., LL.D.

1. (*a*) Sketch the system of Government that prevailed in the Heroic Age. (*b*) What value may be assigned to the Homeric Poems as sources of History?

2. Name the three great divisions of the Greek race, and give some account of their geographical distribution.

3. Discuss the causes of the early superiority of the Ionic Colonies in Asia Minor over the Mother-country in poetical, philosophical and historical literature.

4. Into what divisions may the Greek colonies in Italy be divided? Name the most ancient and influential of them.

5. Give an account of the rise and fall of The Four Hundred and of The Thirty at Athens.

6. Trace the policy and influence of Persia among the Grecian States during the Peloponnesian war.

7. (*a*) Characterize the policy and conduct of Sparta and Thebes, severally, in the affairs of Greece. (*b*) Sketch the main causes that led to the political decadence of Athens as a Greek power.

8. Sketch the personal character, and political aims and policy of Pericles.

9. Enumerate the principal races that inhabited ancient Italy, with a note on the Etruscans.

10. (*a*) What facts connected with the early government of Rome may be inferred from the legends. (*b*) Derive and define the term *Plebs*. (*c*) What classes were comprised in the Plebs at Rome?

11. Enumerate the sources of Roman History which were open to the earliest Roman annalists. Give the names of the chief of these previous to the time of Livy.

12. (*a*) Give a summary of Mommsen's account of the original Constitution of Rome, and of the changes that it underwent by the reforms of Servius Tullius, and the expulsion of the Kings. (*b*) Sketch the political development of the Republic.

13. Define the meaning of the terms:—*Provincia, Colonia, Municipium, Civitas, Clientes* and *Socii*.

14. Give an account of the Licinian Laws.

B.A. EXAMINATION FOR HONOURS IN CLASSICS.

GENERAL PAPER.

MONDAY, APRIL 23RD :—AFTERNOON, 2 TO 5.

Examiner, ... REV. GEORGE CORNISH, M.A., LL.D.

1. (*a*) Discuss the question of the original seat of the Aryan race, noting recently-published views thereupon. (*b*) Name the leading languages of the Aryan family.

2. Give examples of the verbal adjective in Greek. To what does it correspond in Latin? Express by different constructions :—I must do these things, employing the verbal in each.

3. Mention the Greek particles which express :—(1) Emphasis. (2) Irony. (3) Astonishment.

4. (*a*) Compare the earlier and later uses of the Greek Article. (*b*) What classes of nouns may be used *Anarthrous*? (*c*) Classify the various uses of the *Middle Voice* in Greek. How does the Latin provide for the want of the same? (*d*) Are there any traces in Latin of a *Middle Voice* and of an *Aorist Tense*?

5. Set forth (1) in Latin, (2) in Greek, the various ways in which purpose can be expressed, using the phrase *He came to see the Army*. (*b*) What does ἀν imply when used with the Historic Tenses of the Indicative?

6. Point out and illustrate what is peculiar in the use of the Infinitive in the following quotations, severally :—(*a*) Pecus egit altos visere montes. (*b*) Fruges consumere nati. (*c*) Quis sibi res gestas Augusti scribere sumit? (*d*) Nil scire tuum est, nisi te scire hoc sciat alter.

7. (*a*) To whom is the system of Greek accentuation attributed? (*b*) Define *Enclitics*, *Proclitics* and *Anastrophe*. (*c*) Give the rules for the accentuation of the Greek verb. Accentuate, with the proper *spiritus*, the following ext. :—

Λιμενες δ' εισι τοις Ταραντινοις προς βορραν ανεμον εκ πελαγους εσπλεοντι δια ισθμου, και τον ισθμον απεκλειον γεφυραις, ων τοτε κρατουντες οι 'Ρωμαιων φρουροι σφισι μεν εδεχοντο την αγοραν εκ θαλασσης, Ταραντίνοις δ' εκωλυον εκκομιζεσθαι. οθεν ηπορουν αγορας οι Ταραντινοι, εως επελθων αυταις ο Αννιβας εδιδαξε λεωφορον οδον, η δια μεσης της πολεως εφερεν απο των λιμενων επι την νοτιον θαλασσαν, ισθμὸν ετερον ποιησασθαι.

8. Account for the difference of the dialect in the Chorus and Dialogue of Greek Tragedy.

9. Describe the steps that had to be taken for putting a play on the stage at Athens.

10. What changes in the construction and representation of Attic tragedies are ascribed to Aeschylus, Sophocles and Euripides severally?

11. The origin of Comedy and Tragedy among the Greeks. Give also the etymology of the terms *τραγῳδία* and *κωμῳδία*.

12. "Graecia capta ferum victorem cepit;"—illustrate this by reference to the literary history of Rome.

MATHEMATICS AND NATURAL PHILOSOPHY.

FIRST YEAR.

GEOMETRY AND ARITHMETIC.

MONDAY, APRIL 9TH:—MORNING, 9 TO 12.

Examiner,..... ....ALEXANDER JOHNSON, M.A., LL.D.

Assistant Examiner,.....H. M. TORY, B.A.

Write the answers on separate set of papers marked A and B respectively to correspond to the questions.

A.

1. Find a third proportional to two given straight lines.

a. A B is a diameter of a circle, and through A any straight line is drawn to cut the circumference in C and the tangent at B in D; show that AC is a third proportional to AD and AB.

2. Define duplicate ratio. Given any two lines, enunciate the proposition in Euclid by which you would find two lines whose ratio would be the duplicate ratio of the given lines. Prove that the areas of similar triangles are in the duplicate ratio of the homologous sides.

3. Prove that if a straight line be drawn from any point on the circumference of a circle perpendicular to the radius, it cannot meet the circumference in any other point.

4. Describe a square equal to a given equilateral triangle.

(*a*) If the side of the equilateral triangle be 10 feet long, calculate by any method the length of the side of the square.

5. Find the volume in cubic feet of a ton of gold if a cubic inch of gold be 19.35 times as heavy as a cubic inch of water, and a cubic inch of the latter weight 252.458 grains.

6. Find the interest on $2,768.25 for 7 months at 5½ per cent. per annum.

B

7. If from any point without a circle, two straight lines be drawn, one of which cuts the circle and the other touches it; the rectangle contained by the whole line which cuts the circle, and the part of it without the circle, must be equal to the square on the line which touches it.

(*a*) When two circles intersect their common chord will bisect a common tangent.

8. In a given circle inscribe a triangle equiangular to a given triangle.

(*a*) If an equilateral triangle be inscribed in a circle, prove that the radii drawn to the angular points bisect the angles of the triangle.

9. If the vertical angle of a triangle be bisected by a straight lime, which also cuts the base, the segments of the base must have the same ratio which the sides of the triangle have to one another.

10. The rectangle contained by the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the rectangles contained by its opposite sides.

11. A river 25 feet deep and 150 feet wide, flows at the rate of 4 miles an hour, how many tons of water will pass a given point on the bank one minute, assuming a cubic yard of water to weigh $\frac{3}{4}$ of a ton.

FIRST YEAR.

TRIGONOMETRY—ALGEBRA.

TUESDAY, APRIL 10TH:—MORNING, 9 TO 12.

Examiner,.....ALEXANDER JOHNSON, M.A., LL.D.

Assistant Examiner,.....H. M. TORY, B.A.

1. Draw a diagram showing the sine, cosine, tangent and secant of 150°.

(*a*) Calculate the values of these functions.

2. Prove that the sine of an angle is equal to the sine of its supplement, and the cosine of angle equal to minus the cosine of its supplement.

3. In any triangle the sides are proportional to the sines of the opposite angle.

4. If the distance of the moon be 240,000 miles, and the angle it subtends at the eye be half a degree, find its diameter.

5. Solve the equations :—

$$\frac{a+x}{b+x} + \frac{b+x}{a+x} = 2\tfrac{1}{2}$$

$$\frac{4}{x} + \frac{3}{y} = 2\,; \quad \frac{2}{x} - \frac{5}{y} = -7$$

$$\tfrac{1}{2}(x-2) - \tfrac{1}{3}(x-3) + \tfrac{1}{4}(x-4) = 4$$

6. Find the highest common factor (*i.e.* *G.C.M.*) of $2x^4-3x^2y^2+y^4$ and $2x^6-3x^4y^2+y^6$.

7. Derive and explain the formula $A = \frac{a}{r}$. In a circle an angle of 75° at the centre is subtended by an arc, the length of which is 40 ft. Find the length of the radius.

8. Shew that $\sin(A-B) = \sin A \cos B - \cos A \sin B$;
$\cos(A-B) = \cos A \cos B + \sin A \sin B$;

$$\cos 15° = \frac{\sqrt{3}+1}{2\sqrt{2}}$$

9. Prove the following relations :—

(*a*) $\cos A = \sqrt{\dfrac{\cot A}{1+\cot^2 A}}$

(*b*) $\sec^4 B - \tan^4 B = 1 + 2\sec^2 B \tan^2 B$

(*c*) $\sin 2A = 2 \sin A \cos A$

(*d*) $\cos 2A = \dfrac{1-\tan^2 A}{1+\tan^2 A}$

10. In any triangle shew that,

$$\frac{\tan\frac{A+B}{2}}{\tan\frac{A-B}{2}} = \frac{a+b}{a-b}$$

11. Solve the following equations :

(1) $\dfrac{3}{4-2x} + \dfrac{30}{8(1-x)} = \dfrac{3}{2-x} + \dfrac{5}{2-2x}$

(2) $\dfrac{1}{1+x} - \dfrac{1}{3-x} = \dfrac{6}{35}$

(3) $x - y = 3$; $x^2 - 3xy + y^2 = -19$

and simplify $\dfrac{2\sqrt{3} + 3\sqrt{2}}{5 + 2\sqrt{6}}$

12. A person swimming in a stream which runs $1\frac{1}{2}$ miles an hour, finds that it takes him four times as long to swim a mile up the stream as it does to swim the same distance down; at what rate does he swim?

INTERMEDIATE EXAMINATION.

GEOMETRY—ARITHMETIC.

MONDAY, APRIL 9TH:—MORNING, 9 TO 12.

Examiners, ... { ALEXANDER JOHNSON, M.A., LL.D. / JOHN COX, M.A. / H. WALTERS, B.A.

Assistant Examiner..... H. TORY, B.A.

Write the answers on separate sets of papers marhad A,B, *and* C, *respectively, to correspond to the questions.*

A.

1. The opposite angles of any quadrilateral figure, inscribed in a circle, are together equal to two right angles.

(*a*) If the opposite sides of the quadrilateral be produced to meet in P, Q, and about the triangles so formed without the quadrilateral, circles be described meeting again in R, show that P, R, Q will be in one straight line.

2. Inscribe a regular pentagon in a given circle.

3. Find the area included between two concentric circles whose radii are 20 and 15 feet respectively, assuming that the ratio of the circumference to the diameter is 3.14159 and that the area of a circle is equal to that of the rectangle under the radius and a line equal to the semi-circumference.

4. The area of the Province of Quebec is said to be 227,500 sq. miles; if it be covered with snow to the depth of one foot, find the weight in tons of the snow, assuming that 10 cubic inches of snow, when melted, will give 1 cubic inch of water, and that a cubic yard of water weighs $\frac{3}{4}$ ton.

B.

5. Simplify $\frac{\frac{1}{2} + \frac{1}{3} + \frac{1}{4}}{\frac{3}{4} + \frac{7}{8} + \frac{1}{2}}$; and express £61 18s. 1½d. as a decimal of £283.

6. If 8,000 metres be equal to 5 miles, and if a cubic fathom of water weigh six tons and a cubic metre of water weigh 1,000 kilograms, find the ratio of a kilogramme to a pound avoirdupois. (1 ton = 2,240 lbs.)

7. If a straight line drawn through the centre of a circle bisect a chord of the circle, it cuts it at right angles; and if it meets the chord at right angles it bisects it.

a. Two circles intersect in $A_1 B$; PAP', QAQ' are drawn equally inclined to AB to meet the circles in $P_1 P'$, $Q_1 Q_1$; prove that PP' is equal to QQ'.

8. If a straight line be drawn parallel to one side of a triangle it will cut the other sides, or those sides produced, proportionally.

C.

9. If two triangles have one angle of the one equal to one angle of the other, and the sides about the equal angles proportionals, the triangles must be equiangular to one another, and must have those angles equa which are opposite to the homologous sides.

10. Similar triangles are to one another in the duplicate ratio of their homologous sides.

11. If four straight lines be proportionals, the rectangle contained by the extremes is equal to the rectangle contained by the means.

12. Find the present worth of $1,500 due three years hence, interest being reckoned at 5 per cent. per annum.

INTERMEDIATE EXAMINATION.

TRIGONOMETRY—ALGEBRA.

TUESDAY, APRIL 10TH :—MORNING, 9 TO 12.

Examiners, ... { ALEXANDER JOHNSON, M.A., LL.D.
JOHN COX, M.A.
H. WALTERS, B.A.
Assistant Examiner, ... H. M. TORY, B.A.

Write the answers on separate sets of papers marked A, B *and* C, *respectively, to corrsspond to the questions.*

A.

1. Prove the following relations :

(1) $\sin P + \sin Q = 2 \sin \frac{P+Q}{2} \cos \frac{P-Q}{2}$

(2) $\cos A = 2 \cos^2 \frac{A}{2} - 1$

(3) $\tan B + \cot B = 2 \operatorname{cosec} 2B$

(4) $\frac{1-\cos C}{1+\cos C} = \tan^2 \frac{C}{2}$

2. In any triangle show that,

$$\cos A = \frac{b^2 + c^2 - a^2}{2bc},$$

and $\cos \frac{A}{2} = \sqrt{\frac{s(s-a)}{bc}}$ when $s = \frac{a+b+c}{2}$

3. From the foot of a tower, a horizontal distance of 245 feet is measured outwards, and the angle of elevation of the top is found to be $35^\circ\ 24'$, find the height of the tower, the height of the point from which the angle is measured being $4\frac{1}{2}$ feet.

4. Solve the equations :—

$$\sqrt{2x+8} - 2\sqrt{x+5} = 2$$

$$\frac{x+a}{x-b} + \frac{x+b}{x-a} = 2$$

$$3x + 5y = 22\,;\ 7x - 4y = 20$$

B.

5. (*a*) If $\sin A = \frac{1}{61}$ and $\sin B = \frac{9}{41}$, find the value of $\cos (A-B)$.

(*b*) Find in minutes and seconds the angle subtended by a man 6 feet high at a point one mile distant.

(*j*) Prove that

$$(\sin A + \cos A)(\sin 2A + \cos 2A) = \cos A - \cos\left(3A + \frac{\pi}{2}\right)$$

6. A man sees a fort 26° N. of E., and after walking 2,000 yards in a direction 40° S. of E., he then sees it due N. Find the distance of the fort from his second position.

7. A certain number is formed by multiplying together three consecutive numbers. If it be divided by each of them in turn, the sum of the quotients is 431. Find the number.

8. Find the H. C. F. and L. C. M. of

$$x^3 - 7x - 6 \text{ and } x^3 - 6x^2 + 11x - 6$$

and solve the equations :

$$\frac{3x - 2}{5} - \frac{1}{6}(x - \tfrac{1}{6}) = \frac{2x}{51} - \quad (1).$$

$$\frac{a - c}{2b + x} + \frac{b - c}{2a + x} = \frac{a + b - 2c}{a + b + x} - (2).$$

C.

9. The distance of three objects A, B, C, in the same horizontal plane are $AB = 3$ miles, $AC = 2$ miles, $BC = 1.8$ mile; from a station D on CA, produced through A, the angle $ADB = 17°\ 47'\ 26''$ is observed : find the distance DB.

10. From the top of a house, and from a window 30 feet below the top, I observe the depressions of an object on the ground to be 15°.40′ and 10°; what is the distance of the object and the height of the house.

11. (*a*) Simplify $\dfrac{x}{1 + \frac{x}{y}} + \dfrac{y}{1 + \frac{y}{x}} - \dfrac{2}{\frac{1}{x} + \frac{1}{y}}$

(*b*) Solve $\dfrac{1}{3x + 9} + \dfrac{2}{5x + 1} = \dfrac{2}{x + 3}$

(*c*) Solve $\dfrac{3}{x - 1} + \dfrac{4}{x - 3} = \dfrac{15}{x + 3}$

12. Find two fractions whose sum is $\frac{5}{6}$, and whose difference is equal to their product.

THIRD YEAR.

MECHANICS—HYDROSTATICS.

TUESDAY, APRIL 3RD:—MORNING, 9 TO 12.

Examiners, ... { A. JOHNSON, M.A., LL.D. / JOHN COX, M.A.

A.

1. Prove that the velocity acquired by a body in running down an inclined plane is equal to the velocity acquired in falling freely through the vertical height of the plane.

2. Find the resultant of two parallel forces acting in the same direction.

(*a*) A uniform bar of iron 15 inches long, weighing 12 lbs., has a weight of 10 lbs. suspended from one end. Where must a fulcrum be placed that the bar may just balance on it?

3. Describe Nicholson's Hydrometer, and the mode of using it. If the standard weight be 300 grs., calculate the specific gravity of a specimen of mineral whose first and second weighings give 25.36 grs., and 102.33 grs.

4. Describe the Suction Pump and its action. (*a*) Find the effective pressure on the piston.

5. If the elastic force of steam in a boiler be $5\frac{1}{2}$ atmospheres, calculate the pressure on a safety-valve whose area is 5.4 sq. inches.

6. A ball of 4 lbs. weight moving with velocity 8 feet per second strikes directly a ball of 10 lbs. weight moving in the same direction with velocity 2 feet per second; determine their motion after impact (*a*) when they are inelastic, (*b*) when the co-efficient of elasticity is $\frac{13}{15}$.

B.

7. A weight of 1 lb. is dropped down a well 400 feet deep. If sound travels 1120 feet per second, after what interval will the splash be heard? Calculate (*a*) the velocity of the stone at the bottom, (*b*) its momentum, (*c*) its energy.

8. A bullet is fired with a velocity of 1600 feet per second at a slope of 1 in 80 to the horizon. Find the range and the greatest height attained.

9. State the Second Law of Motion, and shew how to express it in a formula, carefully explaining the units to be used

Weights of $1\frac{1}{4}$ oz. and 2 oz. are attached to a light string which is hung over the pulley of an Atwood's machine. Find the velocity 3 seconds after the system is released and also the space passed over.

10. Find the resultant of four forces at a point, viz., 8 lbs. acting due N; 12 lbs. N. W.; 10 lbs. 30° east of S; 6 lbs. 60° E. of N.

11. State Boyle's Law and describe experiments to prove it.

750 cubic inches of gas at 15° C temperature and 760 m. m. pressure are raised to 50° C and 820 m. m. pressure. Find the new volume.

12. State and prove the conditions of equilibrium of a body floating in water.

THIRD YEAR.

ASTRONOMY—OPTICS.

TUESDAY, APRIL 10TH:—MORNING, 9 to 12.

Examiners,..... { ALEXANDER JOHNSON, M.A., LL.D. / JOHN COX, M.A.

A.

1. State the changes which would be observed in the point of sunrise on the horizon, if it were observed daily throughout the year.

2. Describe a method of observing the changes in altitude of the sun at mid-day throughout the year, and state what would be results of the observations. Explain the connection between the observations and the amount of the sun's heat that would fall on a square mile at Montreal at different seasons.

3. In what direction can the constellation Orion be seen at 8 o'clock p.m., to-night?

4. Account for an eclipse of the Moon. Which side of the Moon will first get darkened, and why?

5. For a concave spherical mirror prove

$$\frac{1}{D} \quad \frac{1}{d} = \frac{2}{r}$$

(*a*) Explain how this formula becomes applicable to a *convex* mirror; and if the radius in this case be 10 inches, and the rays *converge* to a point 14 inches behind the mirror, find the conjugate focus. How can the rays be made to *converge* practically?

6. A ruler is dipped into water (index of refraction = $\frac{4}{3}$) at an angle 20°, find the angle made with the surface by the image of the part under water.

7. A concave lens of 6 inches focal length and placed 10 inches from a luminous point, find the conjugate focus.

B.

8. Distinguish between superior and inferior planets. How will they differ in their apparent motions?

9. Give reasons by which you would seek to convince a person (1) that the earth is round, (2) that it rotates on its axis.

10. A double-convex lens has radii 10 and 12 inches respectively for the front and back surfaces, and is made of a substance whose index of refraction for two particular colours is 1.628, and 1.660 respectively. Find the focal length of the lens for each colour.

11. Find a formula for the deviation produced by a prism of small angle upon a pencil incident nearly normally upon it.

If the angle of the prism is 1° 24′ and its refractive index 1.830, find the deviation.

Write down, if you can, without proof formulæ which will determine the deviation for a prism of any angle, and any incidence.

12. Trace the pencil of rays by which a distant point not quite on the axis is seen in an Astronomical Telescope. Find an expression for the magnifying power. What would be the effect of covering (1) the lower half, (2) the middle, (3) the outer edge of the object glass?

B.A. ORDINARY EXAMINATIONS.

MECHANICS AND HYDROSTATICS.

MONDAY, APRIL 9TH:—MORNING, 9 to 12.

Examiners,..... { ALEXANDER JOHNSON, M.A., L.L.D.
JOHN COX, M.A.
H. WALTERS, B.A.

A

1. Explain the Third Law of Motion, using Newton's example of a horse pulling a stone by means of a rope. Point out the error in the following reasoning:—

Action and re-action are equal and opposite forces ;

Equal and opposite forces counterbalance one another (*i.e.*, produce no motion) ;

Therefore, the horse, by its action, cannot move the stone.

2. Prove that the component of the centrifugal force employed in diminishing gravity at any place varies as the square of the cosine of the latitude, and show how the coefficient is calculated. Assuming the coefficient to be 0.11126 and that the value of g (the *actual* acceleration due to gravity) at the equator is 32.088, find what the value would be if there were no rotation.

3. A weight of 17 lbs. just balances a weight of 79 lbs. on a wheel and axle. What will be the radius of the axle, if that of the wheel be 17 inches ?

4. Knowing the volumes and specific gravities of two liquids, investigate a formula for finding the specific gravity of the mixture of the two, stating a necessary condition.

5. How much of its weight will 1 cwt. of cast-iron (sp. gr. = 7.25) lose if immersed in water ?

6. Find approximately the pressure per sq. inch on the body of a diver who has descended 60 feet in fresh water ; the barometer standing at 30 inches.

B

7. Forces of 1 lb., 2 lb., 3 lb. weight respectively act at a point parallel to the sides of an equilateral triangle taken in order. Show that their resultant is $\sqrt{3}$ lbs.

8. A power of 3 lbs. weight can support 5 lbs. weight on an inclined plane. The plane is now turned on the other side as base. Show that the same power can only support a weight of $3\frac{3}{4}$ lbs., the power acting in each case parallel to the plane.

9. A body is dropped from the top of a tower 145 feet high and strikes the ground with a velocity of 96.6 feet per second. Find the acceleration due to gravity.

10. A train is travelling at the rate of 45 miles per hour on level rails when steam is shut off. Assuming that $g = 32$ and that the resistance of friction and the air to the train's motion is equivalent to a retarding force of 11 lbs. weight per ton mass of the train, find how far it will run, and when it will come to rest.

11. State Boyle's Law and describe experiments to prove it.

The temperature and pressure of a mass of gas which occupies 300 cubic inches are 20° C, and 30 inches of mercury respectively. The pressure is first increased to 33 inches, and then the temperature raised to 70° C. Find the volume occupied after such operation.

12. Describe the common suction pump.

The lower valve of a pump is 30 feet 4 inches above the surface of the water to be raised: find the height of the barometer when the pump ceases to work, the specific gravity of mercury being 13.6.

B. A. ORDINARY EXAMINATION.

ASTRONOMY—OPTICS.

TUESDAY, APRIL 10TH:—MORNING, 9 TO 12

Examiners,..... { ALEXANDER JOHNSON, M.A., LL.D.
JOHN COX, M.A.
H. WALTERS, B.A.

A

1. Show that if the Civil Year were made to consist always of 365 days only, *i.e.*, if there were no leap year, its beginning would *retrograde* through all the seasons in about 1,500 years. According to what rule will 1,900 not be a leap year? Show if the rule be not attended to, that the beginning of the Civil Year will *progress* through all the seasons, and find the time approximately.

2. The altitude of the pole at any place is equal to the latitude of the place.

3. Explain the principle of the method for finding the distance of the Moon.

4. If the focal length of the object glass of an astronomical telescope be 8 inches, and that of the eyeglass be $\frac{3}{4}$ of an inch, find the magnifying power. Explain your method of calculation.

5. Describe the eye as an optical instrument.

6. Find the *angle of total reflection* of glass if its refractive index be $\frac{3}{2}$. Describe any experiment exemplifying total reflection.

B.

7. Explain the terms Right Ascension and Declination. If a star is due South at an altitude of 50° at midnight on April 10th in Montreal (lat. 45°), what are its R. A. and Declination?

8. Explain and classify eclipses of the sun.

If the diameters of the sun and moon are taken at 850,000 miles and 2,153 miles, and their mean distance as 92,000,000 miles, find the length of the moon's shadow.

9. What is meant by the Synodic Period of a planet? Shew how to determine the periodic time of the planet by observations of the synodic period and the periodic time of the earth. Taking the latter at 365.25 days, and the synodic period of Saturn at 378.08 days, find the periodic time of Saturn.

10. What is meant by the *Principal Focus*, and the *focal length* of a concave spherical mirror?

Find a formula connecting the distances of a bright point and its conjugate focus from the mirror with the radius of the mirror.

An object 8 inches high is placed 3 feet in front of a concave mirror of 2 feet radius. Find (1) where the image is, (2) whether it is inverted, (3) its magnitude.

11. Prove that the deviation of a ray of light in passing through a thin double concave lens of radii r, r_1, aperture A, and index μ is $\delta = (\mu - 1) A \left(\frac{1}{r} - \frac{1}{r_1}\right)$.

Such a lens of 1½ in. aperture has radii 10 and 12 inches, index of refraction 1.538 and dispersive power 0.026. Find the dispersion.

12. Explain the cause of short and long sight.

A person who can see to read at a distance of 4½ inches requires spectacles that will enable him to hold the book 10 inches away. Find their focal length.

HONOUR EXAMINATIONS.

FIRST YEAR.

GEOMETRY (*First Paper*).

FRIDAY, APRIL 20TH, 1894:—MORNING, 9 TO 12.

Examiner,..... .... ALEX. JOHNSON, M.A., LL.D.

Assistant Examiner,..... .... REV. H. M. TORY, B.A.

A.

1. $A\ B$ is a common chord of two circles: draw the straight line $A\ C\ D$ meeting the two circles in C and D, so that $A\ C$. $A\ D$ shall be given.

2. Given the vertical angle of a triangle in magnitude and position, and the sum of the reciprocals of the sides: prove that the base always passes through a fixed point on the bisector of the vertical angle.

3. If any two chords be drawn through the middle point of a given chord of a circle, the straight lines joining their extremities which are on opposite sides of the bisected chord cut off equal parts from its ends.

4. The rectangle under the perpendiculars from the extremities of the base of a triangle on the bisector of the external vertical angle is less than the square on half the sum of the two sides by the square on half the base.

5. If the lower angles of a square described externally upon the base of a triangle be joined with the vertex of the triangle, the joining lines will intercept on the base the side of the inscribed square which stands on the base.

6. Given the vertical angle and area of an isosceles triangle : construct it.

B.

7. Given the three bisectors of the sides of a triangle : construct it.

8. The sum of the two squares on the sides of any quadrilateral is equal to the sum of the squares on its two diagonals, together with four times the square on the line joining the middle points of the diagonals.

9 The rectangle under the sides of a triangle together with the square on the bisector of the external vertical angle is equal to the rectangle under the segments into which the bisector of the external vertical angle divides the base.

10. Given base, difference of base angles, and area : construct the triangle.

11. Describe a circle passing through a given point and touching a given straight line and a given circle, the circle and the point lying on the same side of the straight line.

12. In a given circle inscribe a triangle whose sides shall pass through three given points.

HONOUR EXAMINATIONS.

FIRST YEAR.

GEOMETRY (*Second Paper*).

FRIDAY, APRIL 20TH :— AFTERNOON, 2 TO 5 P.M.

Examiner,.....ALEX. JOHNSON, M.A., LL.D.

Assistant Examiner,.....REV. H. M. TORY, B.A.

A.

1. Describe a circle which shall pass through a given point, and cut orthogonally two given circles.

2. If through a centre of similitude of two circles two transversals be drawn, meeting the circles in four pairs of points, the straight line joining any pair of points on one circle (not lying in the same transversal), will be parallel to the straight line joining the corresponding pair on the other circle, and will meet the straight line joining the non-corresponding pair on the other side, on the radical axis at the two circles.

3. Given a circle and the lengths of the three diagonals of a quadrilateral inscribed in it: construct the quadrilateral.

4. If a system of circles have a pole and polar in common, they shall have the same radical axis.

5. State and prove Pascal's theorem for a hexagon inscribed in a circle.

6. Derive Brianchon's theorem by reciprocating Pascal's.

B.

1. Given six points on the circumference of a circle; find a seventh point on the circumference, such that the anharmonic ratio of it and three of the points taken in an assigned order shall be equal to the anharmonic ratio of it and the other three points taken in an assigned order.

2. To describe a circle touching three given circles.

3. If through any point a straight line be drawn cutting a circle and the polar of the point, the line shall be cut harmonically by the circle, the polar and the point.

4. Given three circles; taken two at a time they form three pairs of circles. (1) The lines joining the centre of each circle to the internal centre of similitude of the other two meet in a point. (2) The external

centre of similitude of any pair and the two internal centres of similitude of the other two pairs lie in the same straight line. (3) The external centres of similitude of the three pairs lie on a straight line.

5. If any transversal cut a pencil of four rays, the ratio of the rectangle under the whole transversal and its middle segment to the rectangle under its extreme segments is constant.

6. The reciprocals of lines in harmonical progression are in arithmetical progression.

HONOUR EXAMINATIONS IN MATHEMATICS.

FIRST YEAR.

THEORY OF EQUATIONS—ALGEBRA.

MONDAY, APRIL 23RD:—MORNING, 9 TO 12.

Examiner,.....ALEX. JOHNSON, M.A., LL.D

Assistant Examiner,.....REV. H. M. TORY, B.A.

Write answers in separate books A and B.

A.

1. Find the positive root of the equation

$$x^3 + x^2 + x - 100 = 0$$

correct to two decimal places.

2. State and prove Sturm's Theorem.

3. State and prove any rule for finding a superior limit to the positive roots of an equation.

(*a*) Apply it to the equation

$$x^4 - 5x^3 + 40x^2 - 8x + 23 = 0$$

4. Change the equation

$$3x^4 - 4x^3 + 4x^2 - 2x + 1 = 0$$

into another the coefficient of whose highest term will be unity, and all the coefficients integers.

5. Solve the equation

$$x^3 - 3x^2 + 4 = 0$$

two of its roots being equal.

6. Form a rational equation which shall have for two of its roots

$$1 + 5\sqrt{-1} \qquad 5 - \sqrt{-1}$$

B.

7. An equation of an odd degree has at least one real root An equation of an even degree, with its last term negative, has at least two real roots, one positive the other negative.

8. Transform the equation $x^4-7x+6=0$ into another the roots of which are the squares of the differences of the roots of the given equation.

9. (*a*) Solve the reciprocal equation $x^4-2x^3+3x^2-2x+1=0$?

(*b*) One root of the equation $x^4+x^3-25x^2+41x+60=0$ is $3+\sqrt{-2}$. Solve the equation.

10. Prove the Binomial Theorem when the index is a positive fraction.

Expand to five terms $\left(1+\frac{2}{3}x\right)^{\frac{3}{2}}$

11. Out of 25 consonants and 5 vowels how many words can be formed each consisting of 2 consonants and 3 vowels.

HONOUR EXAMINATIONS.

SECOND YEAR.

ANALYTICAL GEOMETRY—(*First Paper.*)

FRIDAY, APRIL 20TH :—MORNING, 9 TO 12.

Examiner, ... ALEXANDER JOHNSON, M.A., LL.D.

1. Define a conic section, and investigate an equation which will include all conic sections. Point out the conditions that this should represent an ellipse or a parabola.

2. Reduce the equation of the previous question to the simplest form (the axes being rectangular) in the case of the ellipse.

(*a*) Show by transformation of co-ordinates that there is an infinite number of pairs of axes (not rectangular), for which the equation will take the same shape.

3. Find the equation of the tangent to an ellipse at any point; and prove that the tangent is parallel to the diameter conjugate to that which passes through the point.

4. Find the property of the parabola which corresponds to that of the ellipse that all diameters pass through the centre. Give the general definition of "diameter."

5. Transform the equation of the hyperbola to the asymptotes as axes.

6. Find the locus of the intersection of tangents to a parabola which cut one another at right angles.

7. Using polar co-ordinates, prove that any focal chord of an ellipse is a third proportional to the transverse axis and the parallel diameter.

8. If in a circle the radii to any two points make angles θ' and θ'' with the axis of x, prove that the equation of the chord which joins them is

$$x\cos\tfrac{1}{2}(\theta'+\theta'')+y\sin\tfrac{1}{2}(\theta'+\theta'')=r\cos\tfrac{1}{2}(\theta'-\theta'')$$

9. Find the equation of a circle whose radius is r, the axes being a tangent and any line through the point of contact making an angle ω with it.

10. Prove analytically that the three bisectors of the angles of a triangle are concurrent.

11. Given any four points, prove that the quadrilateral formed by joining the middle points of the lines which join the given point is a parallelogram.

(a) Prove that the area of this parallelogram is one-half of the area of the quadrilateral formed by joining the given points.

12. Find the equation of the line joining the point $x' y'$ to the intersection of the lines $a x + by + c = 0$ and $a' x + b' y + c' = 0$.

HONOUR EXAMINATIONS.

SECOND YEAR.

ANALYTICAL GEOMETRY—(*Second Paper.*)

FRIDAY, APRIL 20TH:—AFTERNOON, 2 TO 5.

Examiner,.....ALEXANDER JOHNSON, M.A., LL.D.

1. Find the length of the radius of curvature at the point $\frac{1}{3}\sqrt{8}$, 1 of the ellipse

$$\frac{x^2}{16} + \frac{y^2}{9} = 1$$

giving a full investigation.

2. Prove that the three perpendiculars of the triangle formed by three tangents to a parabola intersect on the directrix.

3. Prove that the locus of the intersection of tangents to a parabola which cut at a given angle ϕ is an hyperbola which has the same focus and directrix as the parabola, and of which the eccentricity = sec ϕ.

4. Form the equation of the circle inscribed in the triangle whose sides are $\alpha = 0$, $\beta = 0$, $\gamma = 0$.

5. Taking the general equation of the conic which touches the three lines given in question 4, show that the lines which join the points of contact of the sides with the opposite angles of the circumscribing triangle are

$$l\alpha - m\beta = 0. \quad m\beta - n\gamma = 0. \quad n\gamma - l\alpha = 0.$$

6. The equation of the circle circumscribing the triangle formed by $\alpha = 0$, $\beta = 0$, $\gamma = 0$, is $\beta\gamma \sin A + \gamma\alpha \sin B + \alpha\beta \sin C = 0$.

7. Find the angle contained between the straight lines represented by

$$A x^2 + 2 B xy + C y^2 = 0.$$

8. Determine h so that the following equation may represent two right lines:

$$x^2 + 2hxy + y^2 - 5x - 7y + 6 = 0.$$

9. Investigate fully the meaning of the equation

$$a \sin A + \beta \sin B + \gamma \sin C = 0.$$

10. Find the anharmonic ratio of the four lines

$$a - k\beta,\ a - l\beta,\ a - m\beta,\ a - n\beta.$$

11. Given a point and two fixed lines taken as axes: draw any two lines through the fixed point, and join transversely the points where they meet the fixed lines: prove that the locus of the intersection of the transverse lines is a right line through the origin.

12. If the general equation of the second degree be transformed from one set of rectangular axes to another, the quantities $a + b$ and $ab - h^2$ will remained unaltered.

HONOUR EXAMINATIONS.

SECOND YEAR.

CALCULUS.

MONDAY, APRIL 23RD :—MORNING, 9 TO 12.

Examiner, ... ALEXANDER JOHNSON, M.A., LL.D.

1. Define differential and differentive coefficient. Find the differential coefficients of $\sin x$, $\log x$, e^x.

2. State and prove Taylor's Theorem, and thence deduce MacLaurin's Theorem *a*. Prove MacLaurin's Theorem independently.

3. Given $y = x^4 \log (x^{\frac{3}{2}})$ find $\frac{d^5y}{dx^5}$

4. If $y = e^{rx} \sin x$, prove

$$\frac{d^n y}{dx^n} = \frac{e^{rx} \sin (x + m\phi)}{\sin^n \varphi}$$

where $\tan \phi = \frac{1}{r}$

5. Differentiate $y = (a \sin^2 x + b \cos^2 x)^n$

and $y = \cos^{-1} \frac{b + a \cos x}{a + b \cos x}$

6. Find the value of $x^{\frac{n+1}{n+1}} - a^{\frac{n+1}{n+1}}$ when $n = -1$

(*a*) Investigate the rule you employ.

7. Find the maximum and minimum values of $\frac{x}{x^2+1}$.

8. Integrate $\int \frac{n\ \theta\ d\ \theta}{\cos^2 \theta}$, $\int \sin^2 \theta\ d\ \theta$; $\int \frac{x^2\ dx}{(a+b\ x)^2}$

9. Find a formula for integrating $\int \frac{(p+qx)\ dx}{\sqrt{a+2\ bx+cx^2}}$

10. Find the integrals of

$$\int \frac{dx}{(3+4x^2)\ (4-3\ x^2)^{\frac{1}{2}}}; \quad \int \frac{(3x^2-1)\ dx}{x^3-3\ x+2}.$$

11. Find the integrals of

$$\int \cos\ \theta\ d\theta \qquad \int \frac{x^2\ dx}{(a+c\ x^2)^{\frac{3}{2}}}$$

12. Find a formula of reduction for

$$\int \frac{dx}{(a+b\ \cos^2 x)^n}$$

13. Find by integration the area of the ellipse.

14. Investigate a formula for determining the length of any part of a given curve.

HONOUR EXAMINATIONS.

SECOND YEAR.

TRIGONOMETRY.

MONDAY, APRIL 23RD:—AFTERNOON, 2 TO 5.

Examiner, ... ALEXANDER JOHNSON, M.A., LL.D.

1. Investigate Euler's formula for the expression of the sine of an angle.

2. Investigate Gregory's theorem, viz.:

$$a = \tan a - \tfrac{1}{3} \tan^3 a + \tfrac{1}{5} \tan^5 a, \text{ etc.}$$

(*a*) Hence calculate the value of π in Machin's manner.

3. Prove for Napierian logarithms that

$$\log (y + z) = \log y + 2\left\{ \frac{z}{2y + z} + \frac{1}{3}\left(\frac{z}{2y + z}\right)^3 \text{ etc.} \right\}$$

4. Prove

$$\sin m\theta = m \cos^{m-1}\theta \sin\theta - \frac{m(m-1)(m-2)}{1 \cdot 2.3} \cos^{m-3}\theta \sin^3\theta$$

5. In a spherical triangle prove

$$\tan \frac{A + B}{2} = \frac{\cos \frac{1}{2}(a - b)}{\cos \frac{1}{2}(a + b)} \cot \frac{C}{2}$$

(*a*) Hence deduce the result for the supplemental triangle.

6. In any spherical triangle prove

$$\cot a \sin b = \cot A \sin C + \cos b \cos C.$$

7. State Napier's rules for the solution of right angled spherical triangles.

(*a*) Given the hypotenuse $c = 82° 6'$ and $B = 43° 28'$, find A.

8. In any spherical triangle given $A = 68° 40'$, $B = 56° 20'$, $c = 84° 30'$, find a.

9. In a spherical triangle prove

$$\cos A = \frac{\cos a - \cos b \cos c}{\sin b \sin c}$$

B.A. HONOUR EXAMINATIONS.

MATHEMATICS AND NATURAL PHILOSOPHY.

CALCULUS.

WEDNESDAY, APRIL 4TH :—MORNING, 9 TO 12.

Examiner,..... .....ALEXANDER JOHNSON, M.A., LL.D.

1. Apply the *symbolical* method to the solution of the differential equation.

$$\frac{d^3u}{dx^3} - 6\frac{d^2u}{dx^2} + 11\frac{du}{dx} - 6 = 0$$

explaining the method fully.

a. Solve it also in any other way.

2. Prove that every linear differential equation which can be expressed in the form

$$(a + bx + cx\ldots.)\frac{d^n u}{dx^n} + (a' + b'x + c'x^2\ldots)\frac{d^{n-1}u}{dx^{n-1}} + \&c. = X$$

can be reduced to the form

$$f_0(D)u + f_1(D)l\theta u + f_2(D)l^2\theta u + \alpha = T$$

where $T = f(\theta)$ and $D = \frac{d}{d\theta}$

3. If $u = f(v)$ be a first integral of a partial differential equation of the second order of the form

$$Rr + Ss + Tt = V$$

prove that we must have

$$\frac{du}{dp}\frac{dv}{dq} - \frac{du}{dq}\frac{dv}{dp} = 0.$$

4. Find the class of curves in which the length of the normal is a given function of the distance of its foot from the origin.

5. Find the solution of

$$x^4\frac{d^2y}{dx^2} = (x^3 + 2xy)\frac{dy}{dx} - 4y^2.$$

6. Integrate $$\frac{d^2y}{dx^2} + n^2y = \cos ax.$$

7. Find the solution of

$$\left(\frac{dy}{dx}\right) - \frac{a^2}{x^2} = 0.$$

8. Find whether the equation

$$(3x^2 + 6xy + 3y^2)\,dx + (2x^2 + 3xy)\,dy = 0$$

admits of an integrating factor which is a function of x only.

9. Find the necessary and sufficient condition that the first member of the equation $Mdx + Ndy = 0$ should be an exact differential.

10. If V be a function of r, where $r^2 = x^2 + y^2$, prove that

$$\frac{d^2V}{dx^2} + \frac{d^2V}{dy^2} = \frac{d^2V}{dr^2} + \frac{2}{r}\frac{dV}{dr}$$

11. Eliminate the arbitrary function from

$$z = \phi(ax + by).$$

12. One angle of a triangle is fixed in position, find the envelope of the opposite side when the area is given.

13. Find the moment of inertia of an ellipsoid about a principal diameter.

B.A. HONOUR EXAMINATIONS.

MATHEMATICS AND NATURAL PHILOSOPHY.

THURSDAY, APRIL 12TH:—MORNING, 9 TO 12.

LUNAR THEORY.

Examiner,.....ALEXANDER JOHNSON, M.A., LL.D.

1. Investigate a geometrical construction to show the disturbing force of the Sun on the Moon.

(*a*) At what points will it be altogether (1) radial; (2) tangential?

(*b*) Use the construction to explain in the Theory of Tides the existence of a Tide on the side of the Earth opposite to the Moon.

2. From the construction calculate the values of the forces designated by P, T, and S to the second order of approximation.

3. Taking $\frac{1}{2}$ as our standard of quantities of the first order, show that the disturbing force of the sun is of the second order.

4. Assuming

$$\frac{T}{h^2 u^2} = -\frac{3}{2}\frac{m' u'^3}{h^2 u^4} \sin 2(\theta - \theta')$$

$u' = a'\{1 + e' \cos(\theta' - \zeta)\}$; $u = a\{1 + e \cos(c\theta - \alpha)\}$

prove that, retaining all necessary terms

$$\frac{T}{h^2 u^3} = -\frac{3}{2} m^2 [\sin\{(2 - 2m)\theta - 2\beta\}$$

$$- 2e \sin\{(2 - 2m - c)\theta - 2\beta + \alpha\}$$

$$+ \tfrac{5}{2} e^2 \sin\{(2 - 2m - c)\theta - 2\beta + 2\alpha\}].$$

5. Assuming

$$\frac{d^2 s}{dt^2} \quad s = -\frac{3}{2} m^2 k \sin(g\theta - \gamma)$$

$$+ \frac{3}{2} m^2 k \sin\{(2 - 2m - g)\theta - 2\beta + \gamma\}$$

find s.

6. Explain the physical meaning of the term

$k \sin(g\theta - \gamma)$ in the result.

7. Taking

$$\theta = nt + 2\,e \sin (nt - a') + \tfrac{5}{4}\, e^2 \sin 2\,(nt - a'),$$

show that a progressive motion of the apse is here indicated, and determine its angular velocity.

8. Prove that the Moon's orbit is everywhere concave to the Sun.

B. A. HONOUR EXAMINATIONS.

MATHEMATICS AND NATURAL PHILOSOPHY.

ASTRONOMY.

FRIDAY, APRIL 20TH:—MORNING, 9 TO 12.

Examiner,..... ....ALEXANDER JOHNSON, M.A., LL.D.

1. In calculating the circumstances of a lunar eclipse, if m and p be the Moon's horary motion in longitude and latitude respectively, s the Sun's in longitude and λ the latitude of the Moon at opposition, prove that the distance r of the centres of the Moon and shadow at any time t after opposition will be

$$r = \sqrt{(\lambda - pt)^2 + (m - s)^2\, t^2}$$

2. The area of the illuminated disc of the moon varies as the versed sine of the exterior angle of elongation.

3. If ω be the obliquity of the ecliptic, prove that the annual precession in declination of a star whose right ascension is A is $50''.2 \sin \omega \cos A$.

4. Investigate a formula for determining the aberration of a star in right ascension.

5. Prove that the effect of aberration will be to make the stars appear to describe small ellipses about their true places.

6. Being given the annual parallax of a star, investigate a formula for determining the parallax in longitude at a given time.

7. Distinguish between the geographical latitude ϕ of a place and its geometric latitude φ; and if c be the *compression*, prove that approximately $\phi - \phi' = c \sin 2\,\phi$

8. Assuming the general differential equation for refraction

$$\frac{dr}{d\mu} = \frac{1}{\mu} \cdot \frac{\mu_0\, a \sin Z}{\sqrt{\mu^2\, x^2 - \mu_0^2\, a^2 \sin^2 Z}}$$

deduce (1) Simpson's formula and (2) Bradley's formula.

9. Two stars whose right ascensions and declinations are known, were observed to rise at the same moment, find the latitude of the place.

10. Prove that neglecting the change of declination, the curve traced out by the extremity of the shadow of a vertical rod on a horizontal plane will be a conic section.

B.A. AND THIRD YEAR HONOUR EXAMINATIONS

MATHEMATICS AND NATURAL PHILOSOPHY.

SURFACES.

TUESDAY, APRIL 24TH:—MORNING, 9 TO 12.

Examiner, ... ALEXANDER JOHNSON, M.A., LL.D.

1. Show that $x^3 + y^3 + z^3 - 3xyz = r^3$ is a surface of evolution, and find the axis of revolution.

2. Find the partial differential equation of conical surfaces and give its geometrical interpretation.

3. Two systems of concentric spheres, whose centres are at a given distance apart, are constructed. find the surface generated by the common intersection of every pair formed by taking one from each system, such that the difference of their radii shall be constant.

4. Two confocal quadrics cut one another everywhere at right angles.

5. If a system of quadrics have a common curve of intersection, that is to say, if they have eight points in common, the polar plane of any fixed point passes through a fixed right line.

6. Find the locus of a point, whence three tangent lines, mutually at right angles, can be drawn to the quadric.

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z}{c^2} = 1.$$

7. Prove that a tangent planet to the hyperboloid of one sheet touches the surface at one point only and cuts it everywhere else.

8. Find the co-ordinates of the *umbilics* on an ellipsoid.

9. The sum of the squares of the projections of three conjugate diameters of an ellipsoid on any line is constant.

10. Find the equation of the tangent plane at any point of a quadric.

11. Find the equation of the planes through the two intersecting lines

$$\frac{x - x_1}{\cos\alpha} = \frac{y - y^1}{\cos\beta} = \frac{z - z^1}{\cos\gamma} \; ; \; \frac{x - x^1}{\cos\alpha^1} = \frac{y - y^1}{\cos\beta^1} = \frac{z - z^{1\,1}}{\cos\gamma}$$

12. Find the principal planes of the quadric

$$7x^2 + 6y^2 + 5z^2 - 4xy - 4yz = 6.$$

ENGLISH LANGUAGE AND LITERATURE.

ENGLISH LITERATURE.

FIRST YEAR.

FRIDAY, APRIL 6TH:—9 TO 12 A.M.

Examiner,.....CHAS. E. MOYSE, B.A.

Assistant Examiner,.....W. J. MESSENGER, B.A.

1. (*a*) Give Milton's estimate of a good book, and explain Ruskin's classification of books.

(*b*) On what does a man's place in literature depend? Illustrate.

2. Illustrate the general nature of Grimm's Law. State what this law has established in regard to the Aryans. Explain the terms Indo-Germanic and Indo-European.

3. Write on the *Gododin*.

4. Describe the conquest of the Saxon Shore; OR give an account of the Synod of Whitby, and notice its results.

5. Describe fully the third part of *Béowulf*; OR give a short account of Cynewulf's life and three of his works.

6. Give a summary of Alfred's *Preface to the Pastoral Care*.

7. Sketch the great movement of which Dunstan's Reforms were only a part.

8. (*a*) What are the characteristics of the Norman as seen in Literature?

(*b*) How may the Literature of this period be classified?

(*c*) What work furnished the material for the *Historia Britonum*, and what works may be directly traced to the *Historia Britonum*?

9. (*a*) Illustrate the chief characteristics of Chaucer's poetry.

(*b*) Describe Gower's *Confessio Amantis*, and mention three other works with which it may be connected.

10. Describe fully Thos. Sackville's *Induction*.

11. Give a brief account of the life of Sydney and of his chief works,

12. Make notes on Flowers of Zion, Groat's worth of wit, Ogam tablets, Pelagius, Vercelli Book, Homiliae Catholicae, Brunellus, Dante's Universe, Macrobius, Philobiblon, Rime of Sir Thopas, Orlando Furioso.

13. Say where any six of the following extracts occur :—

I gat not a mum of his mouth for my meed
And for lack of money I might not speed.

And thus I see among these pleasant thinges
Eche care decayes ; and yet my sorow springes.

And on the stone that still doth turne about,
There groweth no mosse.

This noble ensample to his sheep he yaf (gave),
That first he wroghte and afterward he taughte.

But leaving the vain trifles of men's souls,
Tell me what is that Lucifer thy lord ?

Through me men gon into the blisful place
Of hertes hele and dedly woundes cure ;

Bote in a Mayes morwnynge on Malverne hulles
Me bifel a ferly.

Yet take good hede, for ever I drede, that ye coude not sustein
The thorney wayes, the depe valleys, the snowe, the froste, the reyn.

FACULTIES OF ARTS AND APPLIED SCIENCE.

FIRST YEAR.

MILTON : *Comus.*

FRIDAY, APRIL 6TH :—2 TO 5 P.M.

Examiner,..... CHAS. E. MOYSE, B.A.

Assistant-Examiner,..... W. J. MESSENGER, B.A.

1. (*a*) Into what periods may Milton's life be divided ?

(*b*) Write down all the works of each period separately.

2. Write, with due regard to style, a criticism of any one of Milton's poems or prose works ; illustrate your remarks by quotations.

3. (*a*) Make notes on :—

The Mermaid ; Old St. Paul's ; Sam'l Hartlib ; Peter Du Moulin ; Triumph of Peace.

(*b*) What do Hall and Hollinshed say regarding the introduction of the Masque into England ?

4. (*a*) What personages in the *Old Wives' Tale* correspond to Sabrina, the Attendant Spirit, and Comus ?

(*b*) Mention two passages in *Comus* which remind one of the Tempest.

5. Quote or describe in your own words, the songs in *Comus*, and state in what connection each is introduced; *or* describe fully the part taken by Comus, quoting, or giving exact reference to any passages which you think particularly good.

6. Make notes on:—
Iris' woof; tell-tale Sun; Sirens three; Star of Arcady;
Gorgon shield; Knot-grass; cheeks of sorry grain;
Circe; unprincipl'd in Virtue's book; Narcissus.

7. Assign the following to their proper characters, and give the context in each case:—

(*a*) Do ye believe me yet

(*b*) For such there be, but unbelief is blind.

(*c*) He called it Haemony and gave it me.

(*d*) Unmuffle ye faint stars.

(*e*) O ye mistook; ye should have snatched his wand.

(*f*) .....none
But such as are good men can give good things.

INTERMEDIATE EXAMINATION.

ENGLISH LITERATURE AND ESSAY.

FRIDAY, APRIL 6TH:—MORNING, 9 TO 12.

Examiners, ... { CHAS. E. MOYSE, B.A. / W. CROCKET, B.A.

(Students of St. Francis College, Richmond, will answer the questions of group A; students of Morrin College, Quebec, the questions of group B; students of McGill University and Stanstead Wesleyan College the portion of group C prescribed.)

A.

1. "Many of our native churchmen, it is true, lived chiefly abroad, but our churches and schools received very many foreigners." Show that this statement relating to the Anglo-Saxon period is true.

2. Write on the *Gesta Romanorum*.

3. Give an outline of the Vision of Piers the Plowman.

4. What do you know concerning Nicholas Udall and Sir David Lindsay of the Mount?

5. Notice the various translations of the Bible into English.

6. Make a list of Elizabethan dramatists, Shakspere excepted, and mention, when you can, a play of each. Enter into details concerning any two of the writers you have mentioned.

7. Write on Bacon and his philosophical system; *or* give an account of Spenser and his work.

B.

1. Indicate the nature of the poetical revival which ushered in the present century. Give your views as to its causes.

2. Write on the characteristics of Scott as a poet, and refer to his works to illustrate your statements.

3. In regard to Wordsworth, point out:

(*a*) the purpose he set before himself,

(*b*) the prejudices excited against him,

(*c*) the chief characteristics of his poetry.

4. Write on The Excursion *or* The White Doe of Rylstone.

5. Write on Shelley *or* Keats as a poet.

6. *Tennyson's Idylls*:—(*a*) How may the Idylls be grouped as now published? (*b*) Point out their unity of design and spiritual significance, (*c*) Write on The Coming of Arthur *or* The Passing of Arthur, introducing quotations from the text.

7. Write on *one* of the following poets:—Coleridge, Byron, Goldsmith, Browning, Longfellow.

C.

(Answer any *four* questions. *Quote from the poets when you can.*)

1. Write on the various intellectual forces which prepared the way for the French Revolution.

2. Sketch Wordsworth's life prior to his going to Cambridge. What matters were dwelt on when the *Prelude* was treated?

3. Write on Christabel, Kubla Khan and Thalaba.

4. Discuss the influence of English Literature on German and German on English, during the Eighteenth Century.

5. What was said regarding (*a*) Byron's models, (*b*) his descriptive power, (*c*) his place in Literature?

6. Notice important matters relating to the poetic ideals of Keats and the peculiarities of his poetry.

7. Treat (*a*) the two crises in the life of Shelley. (*b*) His attitude towards religion and man; (*c*) his imagery.

8. Write critically on Tennyson as a poet (excluding the Idylls), and on Browning as seen in *Christmas Eve and Easter Day*.

ESSAY.

Write an Essay (of not less than one page) on one of the following subjects:—

(*a*) Debating societies.

(*b*) Charles Dickens.

(*c*) Your favorite subject of study.

INTERMEDIATE EXAMINATION.

ENGLISH LITERATURE AND HISTORY.

SHAKSPERE:—A Midsummer Night's Dream.
TENNYSON:—Gareth and Lynette.

FRIDAY, APRIL 6TH:—2 TO 5 P.M.

Examiner,.....CHAS. E. MOYSE, B.A.
Assistant Examiner,.....W. J. MESSENGER, B.A.

(A)

I. (*Answer the first question and any two of the others.*)

1. Assign any six of the following extracts to their respective speakers, and give the context in each case:—

(*a*) But earthlier happy is the rose distill'd.

(*b*) The course of true love never did run smooth.

(*c*) I will roar you an 'twere any nightingale.

(*d*) My hounds are bred out of the Spartan kind.

(*e*) When my cue comes, call me.

(*f*) The lunatic, the lover and the poet
Are of imagination all compact:

(*g*) O grim-look'd Night! Oh Night with hue so black!

(*h*) I am aweary of this moon: would he would change!

2. Discuss the Midsummer Night's Dream with reference to:—

(*a*) The purpose of the play.

(*b*) Anachronisms.

(*c*) Contemporary references.

3. Describe the events of Act III, quoting any passages which appear to you particularly good.

4. Sketch the character of Titania, illustrating your remarks by quotations.

5. Shakespere was the "soul of the age." Justify this, noticing at the same time the ethical aspect of the Elizabethan drama.

(B)

(*Answer any two questions.*)

1. (*a*) Sketch Tennyson's life up to the publication of his first volume of poems.

(*b*) Comment on each of the important events of Tennyson's life which took place in 1850 and 1883.

2. With regard to Gareth and Lynette, discuss, giving quotations in support of your statements :

(*a*) The season of the year in which the events take place.

(*b*) The subject of the poem.

(*c*) The meaning of the three knights collectively and individually.

(*d*) The spiritual character of Camelot.

3. Describe (*a*) The gate of Camelot, and give the spiritual interpretation as you proceed.

(*b*) What Gareth saw when he reached the first loop of the river and stood waiting for the knight.

II. ENGLISH AND CANADIAN HISTORY.

(N.B.—Candidates will answer any two questions in A and any two questions in B, *or* any two questions in A and any two questions in C.)

(A)

1. Make notes on Hereward the Wake, the battles (2) of Falkirk, David Leslie, the Triple Alliance, Sancroft.

2. Name constitutional measures relating to each of the following matters, and say to what reign they belong :

(*a*) The application of English laws to Ireland.

(*b*) The bringing of foreign goods to England in English vessels.

(c) The admission of Roman Catholics to Parliament.

(*d*) The inability of the king to dispense with the laws.

3. Mention one particular in which the following treaties affected England: Ryswick, Troyes, Utrecht.

4. Mention, with precision of detail, an event in which the following are concerned: Clive and Arcot; Clive and Siraj-ud-Daula; Warren Hastings and the Rohillas; Sir John Eliot and Buckingham; Monmouth and Taunton; Prince Charles and Penderell.

(B)

1. (*a*) Briefly notice the measure which gave rise to the parties called Whigs and Tories, the attitude of the leading statesmen towards it, and its fate.

(*b*) Notice briefly the following measures of the reign of William III: the Toleration Act; the alteration of Henry VIII's law of Treason; the dismissal of judges.

2. Write on the state of the country in the time of Cromwell.

3. Assign events to the following dates: 1513, 1666, 1704, 1805, 1838, 1857.

(C)

1. Mention two events in Canadian history before the English conquest which concern Quebec, Lachine, Louisburg, Annapolis. Sketch the Constitutional Act of 1791.

2. Write on the Government of French Canada.

3. Sketch the cause of hostilities in the Ohio Valley a few years previous to the English conquest of Canada.

SESSIONAL EXAMINATIONS, 1894.

THIRD YEAR.

CHAUCER:—*Prologue to the Canterbury Tales.* RHETORIC.

FRIDAY, APRIL 6TH:—AFTERNOON, 2 to 5 P.M.

Examiners, ... { CHAS. E. MOYSE, B.A. / P. T. LAFLEUR, M.A.

(Write your answers to groups A and B in separate books, and your name on the cover of each book.)

A. CHAUCER.

1. "All his pilgrims are severally distinguished from each other, and not only in their *inclinations* but in their very *physiognomies* and

persons." *Dryden.* Support Dryden's criticism by applying it to the Squyer, Prioresse, Marchant, Frankeleyn and Pardoner, and as you do so, use your own diction except where Chaucer's seems necessary.

2. Treat the following lines thus:—

(*a*) Scan them;

(*b*) Indicate the pronunciation of the words in italics;

(*c*) Give the origin of the final *e's;*

(*d*) Make notes on words which illustrate the history of English, and on allusions.

And *smale fowles* maken *melodye.*
He was a *verray* parfit gentil *knight.*
The *reule* of *seinte* Maure or of seint Beneyt.
And *everich* hostiler and tappestere.
And bisily gan for the soules preye.
That hadde y-lad of dong ful many a fother.
Ful redy hadde he his apothecaries
But greet harm was it as it thoughte me.

B. Rhetoric.

(N.B.—Additional marks will be given for excellence of method and style.)

1. Explain carefully (if necessary, with illustration):—(*a*) Figure of speech: (*b*) the classification of figures of speech; (*c*) Epigram, Sarcasm, Antithesis.

2. (*a*) Distinguish with the help of examples between:—*Objective* and *Subjective* description; *Panoramic* and *Scenic* description.

(*b*) Describe, in accordance with the rules of method, any *one* of the following:—

A. The *portrait* of any celebrated character in history.

B. The *character* of any well-known personage in the drama or in prose fiction.

C. Any striking *landscape.*

(N.B.—The answer to this question must not be a quotation, and need not exceed twelve lines.)

3. What is meant by: Argument from Analogy, Refutation, Peroration? Give a short example of each.

4. Make some notes on Tragedy of *destiny.*

5. Explain the difference between the *Matter* and the *Form* of Poetry.

B.A. ORDINARY EXAMINATION.

EUROPEAN HISTORY.

MYERS:—*Mediaeval and Modern History*; BRYCE:—*Holy Roman Empire. Lectures.*

FRIDAY, APRIL 6TH:— 2 TO 5 P.M.

Examiners,..... { CHAS. E. MOYSE, B.A. / REV. PROF. A. T. LOVE, M.A.

(*Students of Morrin College will answer Groups A and B. Students of McGill College will answer Group C, and also any two questions in each of the Groups A and B*).

(A) MYERS:—*Mediaeval and Modern History.*

1. Write on the council of Whitby and the Roman Victory.

2. Sketch the defects and advantages of Feudalism.

3. Give an outline of the Children's Crusade.

4. What do you know concerning the character and reign of Maximilian I. of Germany?

5. Notice the struggle between Gregory VII and Henry IV; and between Innocent III and (*a*) Philip Augustus, (*b*) King John.

6. Write on the Ottomans.

7. Give an account of: (*a*) the persecution of the Albigenses, (*b*) the Golden Bull, (*c*) Rienzi.

(B) BRYCE:—*Holy Roman Empire.*

1. Notice the defect in the title of the Teutonic Emperors.

2. How were the rights of the Empire proved from the Bible?

3. What historical bearing has the revival of the study of the civil law?

4. Notice memorials of the Germanic Emperors in Rome.

5. Mention the leading statements made in regard to Napoleon and imperialism.

6. How does Bryce view Charles V?

(C)

1. Write on the place occupied in Canadian history by the Fur trade prior to the establishment of the Hudson's Bay Company.

2. (*a*) Notice causes of emigration, and refer them to America. (*b*) Mention in a few lines what you consider to be the really important aspects of the study of Canadian history.

3. What popular notions concerning Greek history require to be corrected? Write on federalism in Greece, and mention, in their order, some facts concerning it.

4. Write on (*a*) Rome considered from the standpoint of physical geography, (*b*) Rome's growth as being the growth of a city, (*c*) instances of Rome's diplomacy, (*d*) Rome's mission to Europe.

5. Give some idea of Rome's extent in the time of Trajan and of Justinian.

6. Write on Islam, (*a*) undivided and (*b*) divided.

EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

THIRD YEAR.

MACAULAY:—*History of England*, Vol. I., Chap. I. GREEN:—*History of the English People* (Reigns of Eliz. and Chas. II.).

TUESDAY, MARCH 13TH:—2 TO 5 P.M.

Examiner,.....CHAS. E. MOYSE, B.A.

I. Macaulay.

1. Write on the nature of the limited monarchies of the Middle Ages and their fate.

2. Scotland and Ireland:—give the outline of Macaulay's comparison.

3. Write on the impeachment of the five members and its effect on the country.

4. Write briefly on the following matters:

(*a*) Cromwell's title and installation;

(*b*) his House of Commons;

(*c*) his Upper House.

5. In what way is allusion made to the following persons?

(*a*) Sir Thos. Smith.

(*b*) Comines.

(*c*) Whitgift.

II. Green.

1. Write on the Catholic party in Scotland between Mary's landing and the murder of Rizzio.

2. Notice the attitude of the Houses concerning the Queen's marriage.

3. Make notes on Dreux, Cuthbert Mayne, Smerwick, Campian, Martin Marprelate.

4. Clarendon :—his measures and aims.

5. Describe the character and physique of William of Orange.

6. Write on Sir W. Temple and his Council.

7. Briefly notice the condition of Spain in the time of Chas. II. of England.

EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

THIRD YEAR.

Leslie Stephen : *English Thought in the Eighteenth Century.*—Addison : *Papers on Paradise Lost.*

SATURDAY, MARCH 17TH :—9 A.M.

Examiner, ... CHAS. E. MOYSE, B.A.

Asst. Examiner.....W. J. MESSENGER, B.A.

1. (*a*) "Homer hastens into the midst of things." Illustrate and apply to Virgil and Milton. (*b*) Virgil has described the birth of the Carthaginian commonwealth; apply to Milton. (*c*) Examine the *greatness* of the three epics.

2. (*a*) To what characters in *Paradise Lost* does Addison object, and why? What reference is made to Virgil? (*b*) On what general grounds ought the three epics to prove interesting to their readers?

3. (*a*) What is said regarding propriety of sentiments in Milton? What reference is made to Shakspere in this connection? How does Addison defend improprieties in Homer? (*b*) Very briefly criticise Addison's criticism of "the only piece of pleasantry in *Paradise Lost.*"

4. Mention the method by which, according to Aristotle, a sublime style may be formed, and illustrate from Milton.

5. (*a*) Mention the two kinds of implex fables, say to which *Paradise Lost* belongs, and notice Milton's expedients to cure its defect.

(*b*) Briefly touch on Addison's view regarding the hero of *Paradise Lost*, the lines on Milton's blindness, and allusion to heathen fables.

6. (*a*) What has Addison to say regarding Satan's first speech, and the catalogue of evil spirits?

(*b*) *Comparaisons à longue queue.* Give the leading statement in the presentation of the topic in which this allusion occurs.

7. Show how the characters of Moloch and Mammon are sustained with propriety in *Paradise Lost.*

8. Write on Satan in Paradise.

9. Write on the Tenth Book of *Paradise Lost.*

Leslie Stephen.

1. (*a*) In what respect does Brown (*a*) resemble, (*b*) differ from, Rousseau? (*b*) The letters of Junius belong to the historian of fact rather than of thought: why?

2. (*a*) In what consisted the weakness of Delolme's theory?

(*b*) What were Tucker's political views?

3. (*a*) What does Burke say of "Constitutional Equilibrium?"

(*b*) Write briefly on Prescription and on Burke's use of the term.

4. (*a*) Write on Price and his theory.

(*b*) Point out the chief features in Godwin's Moral Philosophy.

EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

THIRD YEAR.

BURKE:—*Reflections.* MACAULAY:—*Essays on Clive, Ranke's History of the Popes, and Warren Hastings.*

FRIDAY, MARCH 23RD:—2 TO 5 P.M.

Examiner, ...CHAS. E. MOYSE, B.A.

1. Write on the confiscation of Church property in France as a judgment in law; state the pretext alleged; examine the attitude of the monied interest and the men of letters; compare confiscation elsewhere, and give Burke's argument to prove that confiscation is unnecessary.

2. Summarize in one page Burke's views regarding the army.

3. Write very briefly on the following matters:

(*a*) The virtue of prejudice.

(*b*) The reasons why the landed and monied interests were less miscible in France than in England.

(*c*) The *terms* on which Church property in France could be bought.

(*d*) The acting of "this very massacre" on the stage.

(*e*) Inequality of representation in England.

(*f*) Royal toleration of obnoxious ministers.

(*g*) The speech of Mr. Bailly.

4. Sketch the career of Meer Jaffier.

5. (*a*) Write on Cheyte Sing.

(*b*) Outline the character and attainments of Burke.

6. Give an account of "the third struggle for spiritual freedom."

7. Explain the following allusions: the Prince of Machiavelli Ferduci; the firmness of Mucius; the dignified air with which Sir Charles Grandison bowed over Miss Byron's hand; the Saint Cecilia (of Mrs. Sheridan); the judicious liberality of Cosmo; Wallenstein; armies such as Frederic would be proud to command; a strain worthy of Captain Bobadil; Monsieur Jourdain; the victories of Granicus.....and of Narva.

EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

THIRD YEAR.

DRYDEN: *Annus Mirabilis; Absalom and Achitophel; Preface to Fables.*
SPENSER: *Faerie Queene, Bk. I.;* MILTON: *Comus.*

TUESDAY, MARCH 27TH:—2 TO 5 P.M.

Examiner,..... ....CHAS. E. MOYSE, B.A.

1. (*a*) How does Dryden speak of the title of his poem, its metre, and naval battles? Explain the allusions made.

(*b*) Refer the following extracts to their places in the poem:

(*a'*) and Saturn so appeared,
When from lost empire he to exile went.

(*b'*) So weary bees in little cells repose.

(*c'*) Seven ships.....
Besiege the Indies.

2. (*a*) Describe Shimei and Barzillai. (Explain allusions).

(*b*) Refer the following extracts to their places in the poem:

(*a'*) And Heaven had wanted one immortal song.

(*b'*) He had his jest and they had his estate.

(*c'*) Kings are the public pillars of the State.

3. Give Dryden's opinion of (*a*) Chaucer's invention, (*b*) his characters.

4. Give the meaning, and nothing else, of the following words, and refer as many as you can to their places in the poem: chaw, agraste, lay-stall, dite, eyas, mew, owch, deare, defeasaunce.

5. Mention the combats which occur in the First Book, the result of each, and its significance.

6. Write on the House of Holiness.

7. Give, in one page, an outline of *Comus*.

8. Quote from *Comus* disconnected passages in illustration of Milton's forcible use (*a*) of allusions, (*b*) of simile; also passages of which the Burden is (*a*) Heavenly care of mortals, (*b*) the power of music.

EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

THIRD YEAR.

ANGLO-SAXON AND EARLY ENGLISH.

SATURDAY, MARCH 31ST :—2 TO 5 P.M.

Examiner,.....CHAS. E. MOYSE, B.A.

Assistant-Examiner,.....W. J. MESSENGER, B.A.

SWEET: *Anglo-Saxon Reader*, Extt. IV., VIII., XXI., XXII., XXVII.

MORRIS AND SKEAT: *Specimens of Early English*, Part II., Extt. I.-IX.

(Write your answers on separate sets of papers, marked A and B respectively, to correspond to the divisions below.)

A.

1. EXT. IV. Translate lines 92-97 and 142-149.

Cweth, conjugate the tense; *mæge*, conjugate the present indicative and subjunctive; *hund*, make notes on the various ways of expressing 100.

EXT. VIII. Translate lines 97-105 and 204-211.

Freten, *eoden*, *gefuhton*, *ofslægen*, give principal parts; *Cristnan*, decline.

EXT. XXI. Translate lines 273-279.

Make five philological notes on words you select from this passage.

EXT. XXIII. Translate lines 46-54 and 241-253.

EXT. XXVII. Translate Riddle VI.

Parse the verbs and nouns, giving the gender of the nouns in every case, and the nominative plural of each.

B. 1. Translate:—Ext. I. (A), lines 363-374.
Ext II., Psalm XVII, lines 105-116.
Ext. III., lines 202-215.
Ext. IV. (D), lines 1-12.
Ext. VI., lines 36-42.
Ext. VII., lines 63-74.
Ext. IX., 169-180.

2. Translate:—(*a*) Vor zothe ich wylle zygge.
(*b*) to oure emcristen, bonayreliche:
(*c*) Of a folk ferr a rd first uncuth,
(*d*) On the sakles he suld ta wrake.
(*e*) In water ich wel the cristny her
(*f*) Rooles ase the roo;
(*g*) With lossum chere he on me loh;
(*h*) Er then hue buen rype
(*i*) Ne his silver til okir noght es givand;
(*j*) The prestes so thries duppeth,
(*k*) huyche time the thyef is comynde me not ac echetyme me ssel drede.
(*l*) After heruest tho hor ssipes and hii al preste were.

3. Point out the dialectal words in the extracts of question 2, and give their dialectal marks.

EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

THIRD YEAR.

ANGLO-SAXON.

Thursday, April 5th:—2 to 5 p.m.

I. Trans

(*a*) *The Battle of Maldon*, 152-162 and 312-325.
(*b*) *Judith*, II. 15-33 and 302-319.
(*c*) *Cynewulf.* The horn and codex Riddles.

II. Translation at sight:

(*a*) Selected sentences. (*b*) Connected passages from *The Legend of St. Andrew*.

EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

THIRD YEAR.

MILTON: *Shorter Poems.* WORDSWORTH: *Prelude.*

MONDAY, APRIL 16TH:—2 TO 5 P M.

Examiner,.....CHAS. E. MOYSE, B.A.

1. Explain the following epithets, and give the lines in which they occur: *uncouth, decent, garish, nice, infamous, tinsel-slippered, scrannel.*

2. Refer the following allusions to the sub-divisions in which they occur, and explain them: drudging goblin; Ethiop Queen; Thrice great Hermes; Pelops' line; Cambuscan bold.

3. Write on the development of pastoral poetry, and examine the structure of Arcades and Lycidas.

4. Quote from L'Allegro, Arcades and Lycidas a short passage in which Milton presents some aspect of nature.

5. Notice the following matters with which the Prelude deals:

(*a*) Personal acquaintance with life in France during the Revolution.

(*b*) The growing influence of Nature on the poet's mind.
(*Quote when you can.*)

6. Give a careful outline of the narration of three important and disconnected experiences which refer to some cardinal point in the development of Wordsworth's mind. (No repetition of previous matter will obtain credit).

EXAMINATIONS FOR HONOURS IN ENGLISH AND HISTORY.

THIRD YEAR.

HALLAM:—*Middle Ages*, chaps. I., III., V.

THURSDAY, APRIL 19TH:—2 TO 5 P.M.

Examiner,.....CHAS. E. MOYSE, B.A.

1. Notice (*a*) the struggle between Charlemagne and the Saxons, and its results.

(*b*) The question of "the exclusion of females from the throne of France."

(*c*) The last years of Louis XI.

2. What do you know concerning Pope Innocent III?

3. Make notes on Brancaleon, Imilda de' Lambertazzi, Fra Giovanni di Vicenza.

4. Write on Giano della Bella and Michel di Lando.

5. Describe the attempt of Genoa to take Venice.

6. Give an account of the de' Medici family.

7. Write on the free Imperial cities of Germany.

8. Make a brief note on each of the following:—Bernard du Guesclin, Fra Moriale, Melchtal of Underwald, Aversa, Roger di Loria, Montlehery.

EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY. THIRD YEAR.

CHAUCER:—*Parlament of Fowles;* SIDNEY, *Apologie for Poetrie;* MILTON, *Areopagitica.*

MONDAY, APRIL 23RD:—2 TO 5 P.M.

Examiner, ... CHAS. E. MOYSE, B.A.

1. (*a*) Mention the birds chosen to speak in the conference, and give the substance of what each said.

(*b*) Give the meaning (and nothing more) of the following words: blyue, diffynen, entirmetyn, flit, hauryn, gan mysse, nimen, quod, soleyn were.

(*c*) Quote or give the substance of the stanzas beginning thus:

The wery huntere
The byldere ok—

2. (*a*) Notice the occasion which called forth Sidney's work.

(*b*) Give Sidney's definition of poetry, his remarks on the English stage, and his examination of metre and rime.

3. (*a*) Give the substance of the passages beginning thus:

Lords and Commons of England, consider what nation it is whereof ye are.

Not much better will be the consequence ev'n among the Clergy themselves.

(*b*) Make notes on the following names, and say in connection with what subject each is found: Thales, Padre Paolo, Lullius, Typhon, the Lord Brook.

(*c*) Write a critical essay on the *Areopagitica.*

SESSIONAL EXAMINATIONS, 1894.

ADDITIONAL AND B.A. HONOUR EXAMINATION IN ENGLISH.

TENNYSON:—*In Memoriam*.

MONDAY, MARCH 5TH:—AFTERNOON, 2 TO 5.

Examiner.....CHAS. E. MOYSE, B.A.

1. Take the leading ideas of the Prologue and show that they are reflected in the poem.

2. Genung, following the usual method of analysis, divides the poem according to chronological landmarks: write on this.

3. Show that *Lycidas* and *Adonais* are of no essential value in interpreting *In Memoriam*.

4. In what ways does *In Memoriam* show the marks of the age in which it was written?

5. Refer the following extracts to their places in the poem, and mention the minor theme to which each belongs:

(*a*) The pillar of a people's hope.
(*b*) The living soul was flash'd on mine.
(*c*) These two have striven half the day.
(*d*) Result in man, be born and think.
(*e*) Thy place is changed; thou art the same.
(*f*) No casual mistress, but a wife.
(*g*) The captive void of noble rage.

6. How does Tennyson deal with the following subjects?—

(*a*) true love
(*b*) Christ
(*c*) individuality
(*d*) the nature of the future life

7. Cite classical and scientific allusions which require explanation, and explain them.

SESSIONAL EXAMINATIONS, 1894.

B.A. EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

GUIZOT: *History of Civilization in Europe*.

FRIDAY, MARCH 9TH:—9–12 A.M.

Examiner.....CHAS. E. MOYSE, B.A.

1. (*a*) "Civilization is one of these facts." What facts? What are the two great elements involved in civilization? (*b*) How does France stand in regard to European civilization?

2. There was less social happiness in France during the seventeenth and eighteenth centuries than elsewhere in Europe, and yet France was more civilized. Why? Apply the same argument to Christianity.

3. (*a*) What is the characteristic of European civilization, and why does it image the world?

(*b*) State the two elements which Rome has transmitted to European civilization.

4. (*a*) Mention the three stages of the development of the Church, with proofs.

(*b*) Europe is indebted to the barbarians for two elements: what are they?

(*c*) Notice pretensions to legitimacy. Is legitimacy founded on force?

5. (*a*) Contrast the movement of the German tribes with that of the Arabs.

(*b*) What causes terminated barbarism?

(*c*) Classify the historic attempts to free Europe from barbarism.

(*d*) At the end of the tenth century two great results had been obtained. What were they?

6. (*a*) Exhibit the feudal molecule.

(*b*) Contrast feudalism with patriarchal life and clan life; also with the federative system.

7. (*a*) Is it right to call the clergy a caste?

(*b*) Mention the two great facts which belong to the history of the Church during the barbaric epoch.

8. What would seem strange to a burgher of the twelfth century if he surveyed a town of the eighteenth century?

9. (*a*) Mention writers on the Crusades, and note their various attitudes towards Islam.

(*b*) Notice the effect of the Crusades on feudalism.

(*c*) Notice the effect of the Crusades on the boroughs.

10. How does Guizot define royalty? Mention the three kinds of royalty and illustrate each.

11. How does Guizot justify the wars of Louis XIV? Give a proof that the motive of Louis was not a personal one.

12. The attempts at political organization formed from the twelfth to the sixteenth century are of two kinds. Enter into details.

13. (*a*) State the two faults of Gregory VII.

(*b*) Guizot compares the republics of Italy to those of Greece, and to the advantage of Greece. Why?

(*c*) Why was the attempt to found a republic in Switzerland successful?

14. Give some account of the schism of the West.

15. Discuss the three political parties in England at the time of the great struggle between the king and the people.

B.A. EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

CAMPBELL: *Pleasures of Hope.* ARNOLD: *Essays in Criticism* (Second Series).

TUESDAY, MARCH 13TH:—2 TO 5 P.M.

Examiner,.....CHAS. E. MOYSE, B.A.
Assistant Examiner.....W. J. MESSENGER, B.A.

1. Give the context (or its substance) of each of the following lines, and say to what division of the general subject it belongs:

(*a*) Strength in his arm and lightning in his eye

(*b*) In joyless union wedded to the dust

(*c*) Scourged by the winds, and cradled on the rock

(*d*) Launch'd with Iberia's pilot from the steep

(*e*) Thy handmaid arts shall every wild explore

(*f*) And talk with spirits on the midnight heath

(*g*) Thou, undismay'd, shalt o'er the ruins smile.

(*h*) Charm'd as they read the verse too sadly true

2. Give the substance of the poem from

But not to Libya's barron climes alone,
To Chili, or the wild Siberian zone,
Belong the wretched heart and haggard eye

to the end of the First Part.

3. Use the Second Part of the poem to illustrate Campbell's quality as a poet.

4. Trace the connections of the leading thoughts of the Second Part.

5. What does Matthew Arnold say of Charlatanism in connection with poetry?

6. Discuss the poetry of Burns.

7. (*a*) Notice the extent and variety of Gray's learning.

(*b*) What evidence is there that Keats possessed the elements of high character?

8. (*a*) Write on Wordsworth's classification of his poems; compare it with the Greek classification of poetry.

(*b*) "Byron has been over-praised." Illustrate.

9. (*a*) Describe Tolstoi's religious experiences as given in the character of Levine.

(*b*) What was Amiel's true vocation? Give Amiel's criticism of Victor Hugo.

B.A. EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

SHAKSPERE:—*Love's Labours Lost; A Midsummer Night's Dream; Hamlet.*

MONDAY, MARCH 19TH:—2 TO 5 P.M.

Examiner,.....CHAS. E. MOYSE, B.A.

1. Write on Shakspere's grammar and vocabulary, with illustrations.

2. Write a few lines of important criticism on each of the following: dumb show, Kyd, Lyly, Marlowe, Macbeth, King Lear.

3. (*a*) Give an outline of the scenes in Love's Labours Lost, in which the Princess and her ladies appear.

(*b*) Write on Shakspere's learning as displayed in Love's Labours Lost.

4. Refer to the *Dream* in illustration of

(*a*) Dignified sentiment,

(*b*) Poetical sentiment,

(*c*) Euphuistic sentiment.

Mention the character from whom each illustration comes, and in tion it occurs.

5. (*a*) Very briefly state the essential nature of the two parts into which *Hamlet* may be divided.

(*b*) State the four theories entertained concerning Hamlet's madness

(*c*) Trace very carefully the development of Part I. *or* Part II, and give brief quotations as you proceed.

SESSIONAL EXAMINATION.

B.A. ADDITIONAL AND HONOURS.

SWEET :—*Anglo-Saxon Reader, Extt. II., XIII. and XV.*

MORRIS and SKEAT :—*Specimens of Early English, Part II., Extt. X. to XV.*

SATURDAY, MARCH 24TH :—9 TO 12 A.M.

Examiner, ...CHAS. E. MOYSE, B.A.
Assistant Examiner, ...W. J. MESSENGER, B.A.

(A.)

1. Translate :

(*a*) Ext. II., lines 38–60.

(*b*) Ext. XIII., lines 78–94.

(*c*) Ext. XIII., lines 389–400.

(*d*) Ext. XX., lines 80–94.

(*e*) Ext. XX., lines 307–322.

2. (*a*) Conjugate cwethan, witan, weorthan.

(*b*) Give the Umlauts of geryman, ieldu, stiepel, hyldo, ænig, fédan, scethhan, cyst.

(*c*) Decline :—tid, théod, ofost, bearn, brothor, sunu, werod,

(*d*) Give notes on the following :—cunnan, éthel, andwyrde, gelicnis, bilewitnis, dæl.

(*e*) Give the principal parts of :—thicgan, befeolan, béodan, gieldan, scinan, bregdan.

(B.)

1. Translate :—

Ext. XI., lines 93-100.

Ext. XII., lines 54-64.

Ext. XIII., lines 235-248.

Ext. XIV. (A) lines 54-65.

Ext. XV., Passus I., lines 52-68.

Ext. XVIII., lines 29-42.

Ext. XX., lines 277-288.

2. Translate :—

(*a*) So lich, that no lif thilke throwe
That on mai fro that other knowe.

(*b*) Flemer of feendës out of hym and here,

(*c*) Also ther ys yn the cop of an hul a buryel.

(*d*) Manasside to the wynd.

(*e*) Till top our taill he gert hym ly.

(*f*) He sanyt hym for the ferly.

(*g*) He bar a bordun I-bounde with a brod lyste.

(*h*) Sire herui him loked.

(*i*) that percel-mel buggen.

(*j*) Leef not thi licam.

3. (*a*) Write short notes on lyflode, chaffare, tokkeris, menskful, grocching.

(*b*) Write in the *Northern or Southern dialect* a short account of Gower's "Confessio Amantis."

B.A. EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

SHELLEY: *Adonais.* TENNYSON: *Coming of Arthur, Gareth and Lynette, Holy Grail, Passing of Arthur.*

TUESDAY, MARCH 27TH:—2 TO 5 P.M.

Examiner,.....CHAS. E. MOYSE, B.A.

1. (*a*) Write on the poetical quality of *Adonais*, and quote in illustration.

(*b*) Briefly notice Shelley's treatment of Nature, and correspondences in *In Memoriam.*

(*c*) "The inheritors of unfulfilled renown" Mention them, and make a few notes on each.

2. Show that the *Idylls* present the gradual decay of Arthur's court, and, as you do so, notice Tennyson's alterations of romance in order to emphasize this cardinal feature.

3. Write on the following quotations and jottings from an allegorical point of view only:

(*a*) the heathen host

(*b*) For saving I be joined to her .....
I seem as nothing.

(*c*) The two attitudes of the world towards Arthur.

(*d*) The coronation scene.

(*e*) A ninth one (of the wave).

(*g*) Leodogran's dream.

4. Treat similarly :

(*a*) a royal eagle.

(*b*) the building of Camelot.

(*c*) The knights.

Explain the following allusions : the sacred fish ; Caer-Eryri's highest: as fair as hers who lay among the ashes ; the streaming Gelt ; Arthur's harp.

5. Give an outline of the *Holy Grail*, and in short parentheses point out the allegory as you proceed.

6. Examine Tennyson's use of (*a*) simile and metaphor ; (*b*) alliteration

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B.A. EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

ANGLO-SAXON—BÉOWULF.

FRIDAY, MARCH 30TH :—2 TO 5 P.M.

Examiner,.....CHAS. E. MOYSE, B.A.

1. TRANSLATE :

(*a*) Lines 134–144 ; (*b*) 501–607 ; (*c*) 992–1013 ; (*d*) 1660–1671.

2. Make notes, philological, historical, syntactical, or textual on—Hwæt (1); egsode (6) ; hronrade (10 ; madma (36) ; læssan (43) ; wocun (69); lines 60–63 ; féond *on* helle (101) ; gif stol (168) ; hwurfe (264) ; dæd-hata (275) ; stig (320) ; héothe (404) ; fife (420) ; the swimming match between Béowulf and Breca and Icelandic literature ; éagor-stréame (513) ; ford (568) ; ac he on lust wigeth (600) ; sendeth (601) ; gewiofu (698) ; Sige munde (876).

3. Translation at sight :

Karinus and Leuticus.....ge mé ge thé.

The Harrowing of Hell. (From the A S. version of the apocryphal Gospel of Nicodemus.)

EXAMINATION FOR B.A. HONOURS IN ENGLISH AND HISTORY.

GIBBON:—*Decline and Fall*, Chaps. L., LI., LXIV., LV.

TUESDAY, APRIL 10TH:—2 TO 5 P.M.

Examiner,.....CHAS. E. MOYSE, B.A.

Assistant Examiner,.....W. J. MESSENGER, B.A.

(*Write your answers to groups A and B in separate books.*)

A

1. Make notes on Arabia Felix, Icthyophagi, Macoraba, the Sabians, the Sonna, the Ansars, Eudocia, Youkinna, Philoponus, Shaw Abbas.

2. Give an account of the birth and education of Mahomet.

3. Describe the battle of Cadesia, with results.

4. Briefly sketch the career of Musa.

B

1. Give an account of the European conquests of the Moguls.

2. Make notes on the Caliph Mostasem, Nicopolis, Otrar.

3. Give an account of Timour's invasion of Hindostan.

4. Give an account of the battle of Angora.

5. "The four following observations will serve to appreciate his (Timour's) claim to the public gratitude." What is their substance?

6. Write on the spirit and constitution of the Turkish nation.

B.A. EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

POPE:—*Essay on Criticism*:—*Essay on Man*.

FRIDAY, APRIL 13TH:—2 TO 5 P.M.

Examiner,.....CHAS. E. MOYSE, B.A.

1. How does Pope treat the following subjects?
   (*a*) The relation between Virgil and Nature.
   (*b*) The evil influence of the name of an author.
   (*c*) The just use of severity by critics.

2. Give the epithets which Pope applies to the following: Stagirite, Petronius, Quintilian, Longinus, Vida. Explain the following allusions: Fungoso, Scotists and Thomists; Duck-lane.

3. Write on Pope's use of the word *wit* with illustrations.

4. Give an outline of the main tenets of Deism, as expressed by the school of Bolingbroke, quoting single lines from Pope in illustration.

5. Give the contexts of the following lines, or their substance;

(*a*) His soul proud Science never taught to stray.

(*b*) Why has not Man a microscopic eye?

(*c*) Pleas'd with a rattle, tickled with a straw.

(*d*) He mounts the storm, and walks upon the wind.

(*e*) While Man exclaims, "See all things for my use!"

(*f*) Worth makes the man, and want of it the fellow.

(*g*) If Parts allure thee, think how Bacon shin'd.

(*h*) Heroes are much the same, the point's agreed.

6. Give an outline, without quotation, of Epistle III., *Of the Nature and State of Man with respect to Society.*

7. Give from Epistle II. and Epistle IV., what you consider a short typical passage, illustrating each of the following points:

(*a*) Pope's command of Antithesis.

(*b*) His skill in Reasoning.

(*c*) His use of illustrative Allusion.

B.A. EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

FREEMAN:—*Growth of the English Constitution.* MACAULAY:—*History of England*, vol. I., chap. 3.

TUESDAY, APRIL 17TH:—2 TO 5 P.M.

Examiner,.....CHAS. E. MOYSE, B.A.

Assistant Examiner,.....W. J. MESSENGER, B.A.

(Write the answers to A and B in separate books.)

A.

1. "Now the great work of Earl Simon was to give those cities and boroughs their distinct place as one of the elements of the body politic." Trace the steps.

2. Write on the Witenagemot. Is the House of Lords the modern form of the Witan?

3. The sixteenth century is spoken of as a time of trial for parliamentary in stitutions in Europe. Illustrate the statement and examine the relations of King and Parliament in the reign of Henry VIII.

B.

1. Give a detailed description of the *standing* army of Charles II.

2. Write on the Yeomanry.

3. Give a brief description of each of the watering places in the time o Charles II.

4. Write short notes on :—
The Muns, Ed. Heming, Garraway's, Roger Lestrange, Whitefriars.

B.A. EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

BUCKLE :—*History of Civilization in England.*

THURSDAY, APRIL 19TH :—2 TO 5 P.M.

Examiner,..... CHAS. E. MOYSE, B.A.

1. How is the "parallelogram of forces" used in argument?

2. (*a*) Consider without specific geographical reference, the following statement: "The question of wages is a question of population."

(*b*) "The food consumed by man produces two effects necessary to his existence." Notice them. Examine, in addition, the part played in animal life by air.

3. Notice laws which refer to the Sudras.

4. (*a*) Greece and India: their physical geography.

(*b*) Notice representations of Hindu divinities.

5. (*a*) Make notes on the Council of Toledo (663), battle of Muhlberg, Lerma.

(*b*) Notice a few Spanish writers who entered the Church.

6. Write on Spanish ignorance of medicine, mining and diplomacy.

7. (*a*) Sketch the Norse invasions of Scotland.

(*b*) State very briefly why the English wars were favourable to the aristocracy of Scotland.

(*c*) Show that the Scotch in the fifteenth century were ignorant of the commonest arts.

B. A. EXAMINATION FOR HONOURS IN ENGLISH AND HISTORY.

VILLIERS: *The Rehearsal*. MORE: *Utopia*.

SATURDAY, APRIL 21ST:—2 TO 5 P.M.

Examiner, ... CHAS. E. MOYSE, B.A.
Assistant Examiner, ... W. J. MESSENGER, B.A.

(*Write the answers to A and B in separate books.*)

A.

1. Write on the heroic play.

2. Select from the remarks of Bayes expressions which refer to the dramatic method in vogue.

3. Trace the two Usurpers through the play.

B.

1. Explain the mode of punishment in vogue among the Polylerites. State exactly how this subject is introduced.

2. Give a general description of the Island of Utopia.

3. Write on the Magistrates.

4. Make notes on *Anemolians*, *Zapoletes*, *Gulike*, *Macariens*, *George Temsic*.

LOGIC, MENTAL, AND MORAL PHILOSOPHY.

INTERMEDIATE EXAMINATION.

FORMAL LOGIC.

FRIDAY, 13TH APRIL:—MORNING, 9 TO 12.

Examiners, ... { J. CLARK MURRAY, LL.D. / P. T. LAFLEUR, M.A.

1. Explain and illustrate:—Positive and Negative names; Connotation and Denotation: Property: *one* important cause of ambiguity in names.

2. Give the rules of logical division. Apply them to the division and subdivision, in four successive steps, of the following general concepts: dramas, periodicals, governments.

3. Explain fully, with examples, the nature of contrary and of contradictory opposition.

4. What is meant by (*a*) Conversion by Limitation, (*b*) Conversion by Contraposition Apply both of these processes to the following propositions:—

A. All gases are elastic.

B. Anarchists are enemies of society.

5. Shew, with the help of diagrammatic circles, that no *syllogistic* inference can be obtained from negative premises. Use a concrete illustration in proof.

6. What is the real object of Reduction? Reduce the following syllogism:—No virtuous pleasure is followed with regret; and as purely selfish pleasures bring regret in their train, there can be no purely selfish pleasure that is at the same time virtuous.

7. Explain, with an illustration of each, the following fallacies:— Non sequitur, ambiguous middle, fallacy of division.

8. Test the following cases of reasoning: *first*, by examining them formally, according to the rules of syllogistic inference; and *second*, by what is called "common sense:"

(*a*) Correction in itself is not cruel. Children, being not reasonable, can be governed only by fear.

Johnson.

(*b*) No man should fear death, for it is according to nature; and nothing is evil which is according to nature.

Marcus Aurelius.

(*c*) If lawyers can find no reason for a law, they presume that it once had; and because it once had a good one, it has so still. Therefore, it ought to be retained.

Bentham.

(*d*) I am walking with a friend in the garden, and we see a moth alight upon a flower. He exclaims, 'What a beautiful butterfly!" Whereupon I remark, "That is not a butterfly, it is a moth." If he asks me how I know that, the answer is: "Because butterflies, when they alight, close their wings vertically, moths expand them horizontally.

G. H. Lewes.

THIRD YEAR.

MENTAL PHILOSOPHY.

THURSDAY, APRIL 12TH:—MORNING, 9 to 12.

Examiner, ... J. CLARK MURRAY, LL.D.

Answer only eight questions.

1. Define Perception, Generalisation, Reasoning, Idealisation.

2. Discuss the question, whether we ever dream of tasting.

3. Explain why a pellet, placed between the two forefingers crossed, appears double; *or* explain any other illusion of doubleness in perception.

4. How far is Speech dependent on the musical perceptions of the ear; *or* what are the physical, the physiological, and the psychological explanations of Harmony?

5. What evidence is there to prove that we cannot perceive distance by sight alone?

6. Explain psychologically the following illusion:—

"At times the small black fly upon the pane
May seem the black ox of the distant plain."

7. Explain psychologically how we perceive objects erect by means of inverted retinal images.

8. Explain fully the nature of Abstraction; *or* discuss the question, whether knowledge begins with individuals or with classes.

9. What are the functions of general terms?

10. Define Idealisation, and distinguish its different forms.

11. Point out the general limitation of all the arts that address the eye, and the distinctive peculiarities of each.

12. Explain what is meant by Associationism, and discuss its claims.

B.A. EXAMINATIONS.

MORAL PHILOSOPHY.

MURRAY'S INTRODUCTION TO ETHICS.

TUESDAY, APRIL 3RD:—MORNING, 9 TO 12.

Examiners,..... { J. CLARK MURRAY, LL.D.
REV. PROF. MACADAM.

(*Answer only seven questions.*)

I. Point out the relations of Ethics to kindred Sciences.

II. (*a*) Show that the morality of an action lies essentially in its intention. (*b*) Discuss the moral character of "Wrong acts with right intentions."

III. Sketch the advance of the moral consciousness towards a rule of conduct possessing universal validity.

IV. Can "Authority" transmute a merely natural or non-moral consciousness into one distinctively moral?

V. Explain the true meaning of "Desert," and give instances of its practical misapprehension.

VI. Give an outline of the opposing positions on the question of the Freedom of the Will.

VII. Present a statement in logical sequence of the substance of the Utilitarian Theory.

VIII. Write a criticism on any one of the vital points of this Theory.

IX. State and remark on Kant's Ethical position.

X. Indicate, with brief criticisms, the chief attempts made before Kant to find the Summum Bonum in an object of reason rather than in an excitement of sensibility.

B.A. EXAMINATIONS.

MORAL PHILOSOPHY.

MURRAY'S INTRODUCTION TO ETHICS.

TUESDAY, APRIL 3RD:—AFTERNOON, 2 TO 5.

Examiners, ... { J. CLARK MURRAY, LL.D. / REV. PROF. MACADAM.

(*Answer only seven questions.*)

1. Distinguish (*a*) Moral and Legal, (*b*) Social and Personal, (*c*) Determinate and Indeterminate Obligations.

2. Explain the nature of Society, and the three forms of Society with which man is necessarily related.

3. Discuss Anarchism and Absolutism in their ethical aspects.

4. Discuss the right of physical freedom, *either* as implying freedom to work *or* as implying freedom of enjoyment.

5. Explain the transition from Personal to Real Rights.

6. Sketch the evolution of the idea of Crime, *or* explain the opposite theories of Punishment, showing how far they may be reconciled in practice.

7. Explain the analogy that is sometimes drawn, as well as the struggle that sometimes arises, between Social and Personal Obligations.

8. In what does the general education of the conscience consist?

9. Describe Virtue as an emotional habit, either in its negative or in it positive aspect.

10. Write a note on Virtue as a habit of Will.

THIRD YEAR HONOURS IN MENTAL AND MORAL PHILOSOPHY.

PLATO'S THEAETETUS AND GREEK PHILOSOPHY.

WEDNESDAY, APRIL 18th :—MORNING, 9 TO 12.

Examiner,..... J. CLARK MURRAY, LL.D.

1. Give a brief outline *either* of the first *or* of the second period in the history of Greek Philosophy.

2. Sketch the Philosophy *either* of the Pythagoreans *or* of the Eleatics.

3. Compare the doctrines of Empedokles, of Anaxagoras and of the Atomists with regard to the primary elements of all things.

4. Give an outline *either* of the Physics *or* of the Ethics of Aristotle.

5. Sketch the Ethics *either* of the Stoics *or* of the Epicureans.

6. Give a clear statement of the question discussed in the Theaetetus.

7. Give also a full statement of the different answers which the question receives in the dialogue.

8. Give an outline of the discussion on any one of these answers.

THIRD YEAR HONOURS IN MENTAL AND MORAL PHILOSOPHY.

LOGIC.

FRIDAY, APRIL 20TH :—MORNING, 9 TO 12.

Examiners,..... { J. CLARK MURRAY, LL.D.
P. T. LAFLEUR, M.A.

1. Explain in outline the relation between Abstraction and Induction, as drawn by Mill.

2. What is meant by "Fallacies of Simple Inspection"? Name the principal divisions. Discuss any *one*.

3. Distinguish, with the help of examples, between *true* analogies and *false* analogies.

4. What is Thomson's view of the scope and purpose of Induction?

5. Explain clearly the meaning of the word *Cause*, as employed by Jevons.

6. What, according to Jevons, are the requisites of a good hypothesis? Compare, briefly, his view with that of Mill.

7. Give, in outline, the position of Venn as regards the Physical Foundations of Inference.

8. What is the meaning of the phrase "The Uniformity of Nature," as used by Venn?

9. Give some idea of the respective views of Venn and Mill concerning the real nature of Induction.

THIRD YEAR HONOURS IN MENTAL AND MORAL PHILOSOPHY.

JAMES' PRINCIPLES OF PSYCHOLOGY AND FRASER'S SELECTIONS FROM BERKELEY.

TUESDAY, APRIL 24th :—MORNING, 9 to 12.

Examiner,.....J. CLARK MURRAY, LL.D.

1. Describe the constituents of Self, *or* state the different theories of Self-consciousness.

2. Explain the effects of Attention on sensation, on discrimination, on recollection, on reaction-time; *or* discuss the question, whether Voluntary Attention is a resultant or a force.

3. Explain Fechner's Psychophysic Law, with James' estimate of its value; *or* explain James' theory of the Elementary Law of Association.

4. Write a note *either* on the Perception of Time, *or* on the Improvement of Memory.

5. Sketch Berkeley's Philosophy (*a*) as indicated in the New Theory of Vision, and (*b*) as subsequently developed in the Principles of Human Knowledge and the Three Dialogues, in Alciphron and in Siris.

B.A. HONOURS IN MENTAL AND MORAL PHILOSOPHY.

ZELLER'S STOICS, EPICUREANS AND SCEPTICS.

THURSDAY, MARCH 15TH :—AFTERNOON, 2 TO 5.

Examiner,..... .... J. CLARK MURRAY, LL.D.

1. Describe the intellectual and the political condition of Greece at the rise of the Stoical and Epicurean Schools.

2. Sketch the early history of Stoicism.

3. Give an account of the views on Nature held by Stoics and by Epicureans respectively.

4. Give an outline either of the Stoical or of the Epicurean Ethics.

5. Give the religious views of the Stoics and of the Epicureans.

6. Give an account of the New Academy.

B.A. HONOURS IN MENTAL AND MORAL PHILOSOPHY.

ARISTOTLE'S NICOMACHEAN ETHICS.

TUESDAY, MARCH 20TH :—AFTERNOON, 2 TO 5.

Examiner..... .... J. CLARK MURRAY, LL.D.

Write on any six of the following subjects :—

1. Ethical and Dianoetic Virtues;

2. Definition and illustration of the former;

3. Classification of the latter;

4. The different kinds of justice;

5. The different kinds of evil with their several opposites;

6. The different kinds of Friendship;

7. The different kinds of political constitutions with their several corruptions;

8. The different kinds of Self-love;

9. Is incontinence compatible with real knowledge ?

10. The final description of the Sovereign Good.

B.A. HONOURS IN MENTAL AND MORAL PHILOSOPHY.

JAMES' PRINCIPLES OF PSYCHOLOGY, Vol. II.

SATURDAY, MARCH 24TH :—MORNING, 9 TO 12.

Examiner, ...J. CLARK MURRAY, LL.D.

(*Answer only eight questions.*)

1. Distinguish Sensation and Perception, showing that there are no pure sensations after the first days of life.

2. Explain the opposite theories on the Law of Contrast.

3. Describe Galton's researches on the faculty of visualising.

4. Explain James' theory of the Perception of Space.

5. What are the true opposites of Belief?

6. In what does James find the intellectual contrast between man and brute?

7. Define Instinct, and show that instincts are not always blind or invariable.

8. Give James' critique of the Associational account of Avarice.

9. Explain James' general theory of Emotion.

10. "Voluntary movements presuppose a memory of involuntary movements." Explain.

11. To what point is the free-will controversy reduced by James?

12. Give a critique of the Evolutional theory of Necessary Truth.

B. A. HONOURS IN MENTAL AND MORAL PHILOSOPHY.

MAINE'S ANCIENT LAW.

THURSDAY, MARCH 29TH :—AFTERNOON, 2 TO 5.

Examiner, ...J. CLARK MURRAY, LL.D.

Take any six of the following subjects :—

1. The jural condition of Society before the formation of codes.

2. The conflict between codified law and the progress of Society.

3. The origin of the doctrine of a Law of Nature.

4. Its influence on Roman Jurisprudence.

5. Its modern development.

6. The unit of primitive Society with illustration of its influence on jural organization.

7. The early history of Property.

8. The early history of Contract.

9. The differentiation of Crime, Wrong and Sin.

10. The influence of Roman Jurisprudence on Latin Theology.

B. A. HONOURS IN MENTAL AND MORAL PHILOSOPHY.

SPENCER, *First Principles*; AND MILL, *A System of Logic, Bk. VI.*

FRIDAY, 6TH APRIL :—MORNING, 9 TO 12.

Examiners,..... .... { J. CLARK MURRAY, LL.D. P. T. LAFLEUR, M.A.

1. Give in outline the distinction drawn by Spencer between the Unknowable and the Knowable. Point out his specific application of it *either* to Religion *or* to Science.

2. Explain the meaning of the phrase "Relativity of knowledge, as employed in *First Principles*": and shew wherein this use of it differs from the signification given to the expression in the work of *one* distinguished philosopher.

3. Write the complete formula of The Law of Evolution. Verify its application, by an example drawn from any department of knowledge. (N. B.—Additional marks will be given if the example be original.)

4. Write short explanatory notes, with examples, on: The Rhythm of Motion, Dissolution, Equilibration.

5. What is Spencer's view of: (*a*) The Problem of Philosophy, (*b*) The essential province and function of Religion?

6. Explain the meaning of *necessity*, as applied by Mill: (*a*) to *physical* phenomena, (*b*) to *moral* conduct.

7. Why must Ethology, or the Exact Science of Human Nature, be altogether deductive?

8. What is meant by the Historical Method of Investigation? Express some opinion regarding its use and limitations as a means of inquiry in any field of interest.

B. A. HONOURS IN MENTAL AND MORAL PHILOSOPHY.

THE PHILOSOPHY OF KANT.

TUESDAY, APRIL 10TH:—MORNING, 9 TO 12.

Examiner,..... ....J. CLARK MURRAY, LL.D.

Answer only eight questions.

1. Define Aesthetic, Logic, Analytic, Dialectic, as used by Kant.

2. What is meant by the Empirical Reality and the Transcendental Ideality of Space and Time?

3. What is the guiding-thread for the discovery of the Categories?

4. Give the table of the Categories, dividing them into Mathematical and Dynamical, and showing that, underlying their trichotomy, there is a dichotomy.

5. How are the principles of Pure Understanding derived from the Categories?

6. What is meant by the Transcendental Illusion, and what is its seat?

7. Give the system of Cosmological Ideas with the Antimonies founded on each.

8. Sketch briefly the solution of the Mathematical and the Dynamical Antimonies respectively.

9. Give an outline of the Analytic of Pure Practical Reason.

10. What are the Postulates of Pure Practical Reason?

11. What is the Faculty of Judgment, and what its Transcendental Principle?

12. Sketch the Dialectic of Teleological Judgment.

B. A. HONOURS IN MENTAL AND MORAL PHILOSOPHY.

HISTORY OF MODERN PHILOSOPHY.

TUESDAY, APRIL 17TH:—MORNING, 9 TO 12.

Examiners,..... { J. CLARK MURRAY, LL.D. / P. T. LAFLEUR, M.A.

Write answers to A. and B. on separate papers.

A.

1. Give a brief outline of the periods into which Erdmann divides Modern Philosophy.

2. Compare the theory of Occasional Causes with that of Pre-established Harmony, connecting each with the general system of philosophy, to which it belongs.

3. Give a brief account *either* of the English moralists *or* of Wolf and his school.

4. Give an account of any one of the three philosophers:—Fichte, Schelling, Hegel.

B.

1. State the causes to which we may ascribe the generally empirical tendencies of English philosophical thought.

2. Give some idea of the importance attached to the principle of Association by English psychologists; and shew clearly the failure of this to account for *all* our states of consciousness.

3. Trace the connection between the general teaching of Bentham and that of John Stuart Mill. Point out also the principal features wherein they differ.

4. Explain the position of Coleridge among modern English thinkers.

B. A. HONOURS IN MENTAL AND MORAL PHILOSOPHY.

GREEN'S PROLEGOMENA TO ETHICS.

FRIDAY, APRIL 20TH;—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL. D.

Write on any five of the following subjects:—

1. Kant's dictum that "the understanding makes nature."

2. The distinction between Desire, Intellect and Will.

3. The distinction between a Want and a Motive.

4. Green's critique of Hedonism.

5. The difference between Pleasure and the Common Good.

6. Moral progress as expanding the area of the Common Good and defining its contents.

7. The Greek and the modern conceptions of virtue.

8. The practical value of Utilitarianism.

B. A. HONOURS IN MENTAL AND MORAL PHILOSOPHY.

SPINOZA'S ETHICS.

TUESDAY, APRIL 24TH :—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL.D.

Write an essay on Spinoza, showing his relation to the Cartesians, and his solution of the problems which they endeavoured to solve.

FRENCH.

FIRST YEAR EXAMINATIONS.

ARTS AND APP. SCIENCE.

THURSDAY, APRIL 12TH :—MORNING, 9 TO 12.

Examiners, ... { P. J. DAREY, M.A., LL.D. / REV. J. L. MORIN, M.A.

Translate into English :—

1. *Elise.* Ah ! Valère, ne bougez d'ici, je vous prie, et songez seulement à vous bien mettre dans l'esprit de mon père. *Valère.* Vous voyez comme je m'y prends, et les adroites complaisances qu'il m'a fallu (*a*) mettre en usage pour m'introduire à son service ; sous quel masque de sympathie et de rapport de sentiments je me déguise pour lui plaire, et quel personnage je joue tous les jours avec lui afin d'acquérir sa tendresse. J'y fais des progrès admirables, et j'éprouve que, pour gagner les hommes, il n'est point de meilleure voie que de

se parer à leurs yeux de leurs inclinations, que de donner dans leurs maximes, encenser leurs défauts et applaudir à ce qu'ils font. On n'a que faire d'avoir peur de trop charger la complaisance, et la manière dont on les joue a beau être visible, les plus fins toujours sont de grands dupes du côté de la flatterie ; et il n'y a rien de si impertinent et de si ridicule qu'on ne leur fasse avaler, lorsqu'on l'assaisonne en louanges. La sincérité souffre un peu au métier que je fais.

L'Avare, Ac. I., Sc. I.

(*a*) Write all the simple tenses of that verb *a fallu*.

2. What are the three vices or ridicules of Harpagon in *l'Avare*? What is the character opposite to that of Harpagon?

3. Explain the difference between *chaque* and *chacun*. Give two examples. Answer to the same question between : *la maison dont je sors* and *la maison d'où je sors*.

4. What part of speech is *on*? What is its gender? When can you put the adjective which follows it in the feminine or in the plural? Give examples.

5. When two or more words form the subject of a verb, how do you put that verb, and in what person? Give two examples.

6. State six cases where you must put the verb in the Subjunctive. Give examples of each case.

7. Translate into French : My sister *enjoyed herself* at the ball ; she wore the new dress which my mother had *ordered for her*. The house which we *saw building* is very high. These girls are good musicians, did you ever *hear them* play? This is a fine comedy ; did you *see it played*? Explain fully the rules to write the Past Participles under-scored.

8. State the difference between, I am afraid he will not come, and, I am afraid he will come.

9. Translate :—A game bag, a bait, the side-walk, a stool, a frame, the acorn, the crumb, the kitchen-garden, a plough, a harrow, a spade.

10. Translate into French :—

Is that the way you proceed? You speak in vain ; no one will hear ou. He concealed that news from his friend. I desire to speak to

you about that business. I have no money about me. We have not seen him for a long time. Take care that he may not fall. The Bible was not translated in the vulgar tongue, or at least the translations that had been made of it were ignored. You might live on your salary if you were a little more economical. If your brother should come, what should I say to him? I doubt if you would have done all that work, if somebody had not helped you.

INTERMEDIATE EXAMINATION.

FRENCH.

ARTS AND APPLIED SCIENCE.

THURSDAY, APRIL 12TH:—MORNING, 9 TO 12.

Examiners, ... { PROF. P. J. DAREY, M.A., LL.D.
REV. J. L. MORIN, M.A.

1. Translate:—

Seigneur, je cherche, j'envisage
Des monarques persans la conduite et l'usage:
Mais à mes yeux en vain je les rappelle tous;
Pour vous régler sur eux que sont-ils près de (*a*) vous:
Votre règne aux neveux (*b*) doit servir de modèle.
Vous voulez d'un sujet reconnaître le zèle?
L'honneur seul peut flatter un esprit généreux:
Je voudrais donc, Seigneur, que ce mortel heureux,
De la pourpre aujourd'hui paré comme vous-même,
Et portant sur le front le sacré diadème
Sur un de vos coursiers pompeusement orné
Aux yeux de vos sujets dans Suse fût (*c*) mené;
Que pour comble de gloire et de magnificence,
Un seigneur éminent (*d*) en richesse, en puissance,
Enfin de votre empire après vous le premier,
Par la bride guidât (*e*) son superbe coursier.

Esther, Acte II., Scène V.

2. (*a*) What other expressions, with the same meaning, could be used instead of *près de?*

(*b*) State the full force of that expression, *aux neveux;* from what is it borrowed?

(*c*) (*e*) Account for the mood and tense of those two verbs.

(*d*) What is the difference between *éminent* and *imminent?*

Who speaks in the above extract? Describe that character.

3. Translate :—

Ce n'est pas impossible et je veux bien e croire.
Mais combien en est-il, parmi les mieux famés
Que l'on verrait encore dignes d'être estimés
Si passant tout à coup du luxe à la misère,
Ils étaient dépouillés même du nécessaire ?
Aisément, en parole, ils bravent le besoin ;
On est fort contre un mal qu'on n'éprouve point.
Aux paisibles vertus la fortune les pousse,
Et par le grand chemin, les conduit sans secousse ;
Comme la probite ne les prive de rien,
Il leur en coûte peu de se conduire bien,
Et, quand on est pourvu de tout ce qu'on souhaite,
Il faudrait être un sot pour n'être pas honnête.
Va, la condition où les hommes sont nés
Les a, plus d'une fois, absous ou condamnés.
On voit dans les salons des gens fort honorables,
Qui seraient en prison, étant nés misérables.

L'honneur et l'argent, Acte I., Scène III.

4. Give the equivalent proverbs or idiomatic expressions in French : To have a grudge against some one. Consider that your fortune is at stake. I abide by your decision. It is all over with him. He has escaped with a reprimand. Cat after king. To look for a knot in a bulrush. To lay up something for a rainy day. God tempers the wind to the shorn lamb. A bird in the hand is worth two in the bush To carry coals to Newcastle. A rolling stone gathers no moss. A new broom sweeps clean. They are hand and glove together. It is ill wind that blows nobody any good.

5. Write briefly on the origin and formation of the French language.

6. (*a*) Characterize the 17th century from a literary point of view. (*b*) How is it named, and why? (*c*) What influence had Spain on it? (*d*) What was done to counteract that influence?

7. Who are the representatives of the Drama in the 17th century? (Tragedy and Comedy). Mention their principal works, and sketch the life of one.

8. Give the authors of the following works :

La recherche de la vérité. LA vocat Patlein. Les Ménechmes. Ariane. L'Enéïde travestie. Caractères. Télémaque. Discours sur l'Histoire Universelle. Les Maximes. L'Art poétique.

9. Translate into French :—

After this he lifted up his head, and seeing the moon rising, walked towards the palace. As he passed through the fields, and saw the animals around him, "Ye," said he, "are happy, and need not envy me that walk thus among you, burdened with myself: nor do I, ye gentle beings, envy your felicity. For it is not the felicity of man. I have many distresses from which you are free; I fear pain when I do not feel it; I sometimes shrink at evils recollected, and sometimes start at evils anticipated: Surely, the equity of Providence has balanced peculiar sufferings with peculiar enjoyments."

Rasselas, chap. 11.

THIRD YEAR EXAMINATIONS.

FRENCH.

MONDAY, APRIL 16TH:—MORNING, 9 TO 12.

Examiners,..... { PROF. P. J. DAREY, M.A., LL.D.
REV. J. L. MORIN, M.A.

1. Où et quand l'auteur de *Cinna* naquit-il? A quelle carrière le destinait-on? Quelle fut sa première pièce, et qu'est-ce qui lui en inspira l'idée? Mentionnez ses quatre principaux chefs-d'œuvre.

2. Donnez une courte analyse des deux premiers actes de *Cinna*. Quand cette pièce fut-elle représentée pour la première fois? Quelle est la base historique de ce sujet? Que pensez-vous du rôle de Livie? de Cinna? Quel motif le fait agir? En quoi le caractère d'Auguste pèche-t-il?

3. Traduisez :

Emilie.—

Cinna dans son malheur est de ceux qu'il faut suivre,
Qu'il ne faut pas venger, de peur de leur survivre;
Quiconque après sa perte aspire à se sauver
Est indigne du jour qu'il tâche à conserver.

Maxime.—

Quel désespoir aveugle à ces fureurs vous porte?
O dieux! que de faiblesse en une âme si forte!
Ce cœur si généreux rend si peu de combat,
Et du premier revers la fortune l'abat.
Rappelez, rappelez cette vertu sublime;
Ouvrez enfin les yeux et connaissez Maxime :

C'est un autre Cinna qu'en lui vous regardez ;
Le ciel vous rend en lui l'amant que vous perdez ;
Et puisque l'amitié n'en faisait plus qu'une âme,
Aimez en cet ami l'objet de votre flamme ;
Avec la même ardeur il saura vous chérir,
Que.....

Cinna, Acte IV., Scène V.

4. Montrez combien la littérature du XVIII siècle contraste avec celle du XVII au point de vue de (*a*) la base, (*b*) du but, et (*c*) de l'esprit ou tendance.

5. Quels sont les quatre grands génies qui remplissent le XVIII siècle tout entier? Indiquez leurs principaux ouvrages et tracez une courte esquisse de la vie de l'un deux.

6. Nommez cinq autres écrivans du même siècle, et indiquez leurs ouvrages.

7. Quel grand service Chateaubriand and Mme de Staël rendirent-ils à la littérature française du XIX siècle? Lesquels de leurs ouvrages y contribuèrent le plus?

8. Quels sont les principaux historiens du XIX siècle? Caractérisez les différentes écoles auxquelles ils appartiennent, et indiquez les ouvrages où ils en ont le mieux appliqué les principes.

9. Traduisez :

When I entered the room my poor uncle had just breathed his last. You were formerly very careful and very steady in your studies, but of late you have relaxed in your efforts. You ought not to endure such an affront without complaining. He boasted that he did it, notwithstanding that I had forbidden him to do it. However convincing these reasons may appear, he wishes to wait till to-morrow before he decides. If you don't care, that child will fall into the water.

10. Translate :

The resolution to visit the Pyramids being thus taken, they set out on the next day. They laid tents upon their camels, being resolved to stay among the Pyramids till their curiosity was fully satisfied. They travelled gently, turned aside to everything remarkable, stopped from time to time and conversed with the inhabitants,

and observed the various appearances of towns ruined and inhabited, of wild and cultivated nature. They measured the dimensions of the great Pyramid, and pitched their tents at its foot. Next day they prepared to enter its interior apartments, and having hired the common guides climbed up to the first passage, when the favorite of the princess, looking into the cavity, stepped back and trembled.

RASSELAS, Chap. XXXI.

B. A. EXAMINATIONS.

FRENCH.

MONDAY, APRIL 16:—MORNING, 9 TO 12.

Examiners, ... { PROF. P. J. DAREY, M.A., LL.D. / REV. J. L. MORIN, M.A.

1. Quel est le sujet de *Cinna*? D'où est-il tiré? Faites l'analyse des deux derniers actes. Quelles autres tragédies Corneille a-t-il empruntées à l'histoire romaine?

2. Que peut-on reprocher au rôle de Livie dans *Cinna*? Le rôle d'Emilie est-il naturel? Pourquoi ne touche-t-elle pas? Pourquoi peut-on dire que la clémence d'Auguste, en un sens, est trop grande, et d'un autre n'est pas assez délicate? Signalez les bassesses de Cinna et de Maxime.

3. Traduisez:—

Emilie,
Cet amour qui m'expose à vos ressentiments
N'est point le prompt effet de vos commandements;
Ces flammes dans nos cœurs sans votre ordre étaient nées,
Et ce sont des secrets de plus de quatre années;
Mais quoique je l'aimasse et qu'il brulât pour moi,
Une haine plus forte à tous deux fit la loi;
Je ne voulus jamais lui donner d'espérance
Qu'il ne m'eût de mon père assuré la vengeance;
Je la lui fis jurer; il chercha des amis:
Le ciel rompt le succès que je m'étais promis.
Et je vous viens, Seigneur, offrir une victime,
Non pour sauver sa vie en me chargeant du crime:
Son trépas est trop juste après son attentat,
Et toute excuse est vaine en un crime d'état:
Mourir en sa présence et rejoindre mon père,
C'est tout ce qui m'amène et tout ce que j'espère.

Cinna, Acte V, Scène II. 1

4. En combien de périodes peut-on diviser le mouvement littéraire en France au XIXme. siècle ? Indiquez les dates. Caractérisez les deux premières périodes.

5. En quel genre littéraire les auteurs suivants se sont-ils distingués et à quelle période appartiennent ils ? Citez leurs principaux ouvrages : Andrieux, Fabre d'Eglantine, Volney, Joubert, Michaud, Villemain, Lamennais, Victor Cousin, Augustin Thierry.

6. Ecrivez une courte biographie de Mme. Staël de Béranger, de Casimir Delavigne. Faites connaître leur caractère et leurs principaux ouvrages.

7 Qui est-ce qui a écrit : *La maison rustique. Les Templiers. Du pape. Histoire des Français. Le lépreux de la cité d'Aoste. Jocelyn. Les Orientales. Eloa. L'Histoire des ducs de Bourgogne.*

8. Translate :—He rewarded me for my attention by reading to me a few lines of my favorite author. He never accounted to himself for his attachment to me. I allowed myself to follow the current of my thoughts without endeavoring to study or examine them. I was not aware that I had altered ; I only felt calmer and happier. He placed upon the table, the drawer of which was wanting, a broken water-jug and a washhand-basin of a different pattern. All along the wall there hung old family portraits, enough to give nervous fits to a good judge.

Cogery.

9. Translate :—The Utopians offer up no living creature in sacrifice, nor do they think suitable to the Divine Being, from whose bounty it is that these creatures have derived their lives, to take pleasure in their deaths or the offering of their blood. They burn incense and other sweet odors, and have a great number of wax lights during their worship ; not out of any imagination that such oblations can add anything to the divine Nature, which even prayers cannot do; but as it is a harmless and pure way of worshipping God, so they think those sweet savors and lights, together with some other ceremonies, by a secret and unaccountable virtue, elevate men's souls, and inflame them with greater energy and cheerfulness during the divine worship.

The Utopia.

HONOUR EXAMINATIONS.

THIRD YEAR.

MONDAY, APRIL 23RD:—9 TO 12 A.M.

Examiner,..... P. J. DAREY, M.A., LL.D.

1. Quel est le sujet de la tragédie d'Horace?

2. Quels sont les deux principaux rôles de femme dans la tragédie d'Horace? Quel intérêt doivent-elles prendre à l'action de cette tragédie?

3. Qu'est-ce que Corneille a voulu peindre dans *Horace?*

4. Comparez le caractère de Curiace, le fiancé de Camille, avec celu d'Horace le mari de Sabine. Comparez aussi Sabine à Camille. Citez quelques vers de l'une et de l'autre.

5. Citez le mot sublime du vieil Horace.

6. Qu'est proprement que l'*Art poétique?*

En combien de chants est-il divisé? Nommez de quoi traitent ces chants respectivement?

7. Citez quelques préceptes que donne Boileau. Pourquoi regarde-t-on l'*Art poétique* admirable?

8. Est-ce à l'influence personnelle de Louis XIV que la France dut cette moisson d'hommes supérieurs presque en tous genres, qui apparurent alors? Développez votre réponse d'une manière complète.

9. Qu'est-ce que l'Académie? Quand fut-elle fondée? De quoi devait elle s'occuper? Quelle est la clause formelle qui fut ajoutée à l'édit de sa fondation? Quel en fut le vrai fondateur?

10. Racontez la vie, le rôle, les idées de Retz.

11. Qu'est-ce que le Jansénisme? Qu'est-ce qui désigna le Jansénisme aux coups des puissances établies?

12. Quelle est la famille qui tient une grande place dans l'histoire du Jansénisme? D'où était-elle sortie? Nommez-en les principaux chefs.

13. Quelle fameuse maison d'éducation habitaient ils? Citez quelques-uns des professeurs et leurs élèves les plus célèbres.

14. Qui étaient les ennemis des Jansénistes? Pourquoi?

HONOUR EXAMINATIONS.

APRIL 17TH :—MORNING, 9 TO 12.

Examiner, ...P. J. DAREY, M.A., LL.D.

1. La Fontaine—Sa vie—ses mœurs—son caractère—ses protecteurs—ses amis.

2. Pourquoi ne réussit-il pas à plaire à Louis XIV ?

3. Qu'est-ce que Fénélon pensait de La Fontaine ?

4. Citez une demi-douzaine de proverbes pris des Fables de Lafontaine.

5. D'où les vers suivants sont-ils tirés :

" Il ne faut pas juger des gens sur l'apparence.
Le conseil en est bon, mais il n'est pas nouveau."
" Sire, dit le renard, vous êtes trop bon roi ;
Vos scrupules font voir trop de délicatesse."
Aux noces d'un tyran tout le peuple en liesse
Noyait son souci dans les pots.
Esope seul trouvait les gens étaient sots
De témoigner tant d'allégresse.

6. A propos de quoi Racine composa-t-il les *Plaideurs* ? Quelle est la pièce classique que Racine a imitée ?

7. Traduisez :

Il veut, bon gré, mal gré,
Ne se coucher qu'en robe et qu'en bonnet carré.
Il fit couper la tête à son coq de colère,
Pour l'avoir éveillé plus tard qu'à l'ordinaire ;
Il disait qu'un plaideur dont l'affaire allait mal
Avait graissé la patte à ce pauvre animal.
Depuis ce bel arrêt, le pauvre homme a beau faire,
Son fils ne souffre plus qu'on lui parle d'affaire.
Il nous le fait garder jour et nuit, et de près ;
Autrement, serviteur, et mon homme est aux plaids.
Pour s'échapper de nous, Dieu sait s'il est allègre.
Pour moi je ne dors plus ; aussi j'en deviens maigre ;
C'est pitié. Je m'étends, et ne fais que bailler,
Mais veille qui voudra, voici mon oreiller.
Ma foi pour cette nuit, il faut que je m'en donne.

8. Translate :—Vous vous morfondez-là, mon père. Faites donc mettre des garde-fous là haut. Mais de quoi s'agit-il? Je veux t'entrenir sans témoin. Depuis quinze ou vingt ans en ça au travers d'un mien pré certain anon passa, s'y vautra. Lorsqu'à votre père ils vont faire leur cour. Le père aura l'exploit, la fille le poulet. C'est un exploit que j'ose vous prier de m'accorder l'honneur de vous signifier. Tenez, voilà le cas qu'on fait de votre exploit. Je les mets à pis faire.

9. Qu'est-ce qu'on appelle *accent tonique*. Où *l'accent tonique* se place-t-il? Définissez le mot *alone?* Qu'est-ce que l'accent secondaire?

10. De quoi provient presque toujours les diphtongues *au* et *ou*?

11. Quelle étymologie a-t-on donné de *savoir?*

12. Combien le français a-t-il de cas? Quels sont-ils?

13. Qu'est-ce que datif exprimait? Où a-t-il disparu et où s'est-il conservé?

14. Quelle est l'origine de la déclinaison de l'article? Expliquez d'où et comment il est venu. Qu'est-ce que vous appelez un mot *proclitique?*

HONOUR EXAMINATIONS.

THIRD YEAR.

FRIDAY, APRIL 20TH;—9 to 12.

Examiner,.....P. J. DAREY, M.A., LL.D.

1. Où et quand Pascal naquit-il? Donnez des détails sur la jeunesse de Pascal. Où fut-il formé?

2. Qu'est-ce qui porta Pascal à écrire les Provinciales? Qu'est-ce que les Provinciales?

3. Faites connaître les pensées de Pascal? Qu'est-ce qu'il se proposait d'écrire? Comment furent-elles composées?

4. Citez quelques des pensées.

5. Traduisez :—

At a small distance from the house, my predecessor had made a seat overshadowed by a hedge of hawthorn and honeysuckle. Here

when the weather was fine, and our labour soon finished, we usually sat together, to enjoy an extensive landscape, in the calm of the evening. Here too we drank tea, which was now become an occasional banquet; and as we had it but seldom, it diffused a new joy, the preparation for it being made with no small share of bustle and ceremony. On these occasions, our two little ones always read to us, and they were regularly served after we had done. Sometimes, to give a variety to our amusements, the girls sang to the guitar; and while they thus formed a little concert, my wife and I would stroll down the sloping field, that was embellished with blue-bells and centaury, talked of our children with rapture, and enjoyed the breeze that wafted both health and harmony. In this manner we began to find that every situation in life may bring its own peculiar pleasures; every morning waked us to a repetition of toil; but the evening repaid it with vacant hilarity.

The Vicar of Wakefield.

6. A qui Racine a-t-il emprunté le sujet de Phèdre? Qui était Phèdre?

7. Qu'est-ce que Racine a voulu personnifier dans sa tragédie de Phèdre?

8. Faites l'analyse de cette tragédie.

9. Est-ce une pièce morale ou le contraire? Développez votre réponse.

10. Quels sont les plus beaux passages de Phèdre?

11. Racontez le dénouement de cette tragédie.

12. Quels furent les sentiments de Thesée après la mort de son fils? Comment chercha-t-il à réparer ses torts?

13. Traduisez :—

Par vous aurait péri le monstre de la Crète,
Malgré tous les détours de sa vaste retraite :
Pour en développer l'embarras incertain
Ma sœur (*a*) du fil fatal eût armé votre main.
Mais non, dans ce dessein je l'aurais devancée ;
L'amour m'en eût d'abord inspiré la pensée ;
C'est moi, prince, c'est moi dont l'utile secours
Vous eût du labyrinthe enseigné les détours.
Que de soins m'eût coûté cette tête charmante !
Un fil n'eût point assez rassuré votre amante :

Compagne du péril qu'il vous fallait chercher,
Moi-même devant vous j'aurais voulu marcher ;
Et Phèdre, au labyrinthe avec vous descendue,
Se serait avec vous retrouvée ou perdue.

Ac. II., Sc. V

(*a*) Comment s'appelait cette sœur?

GERMAN.

FIRST YEAR.

WEDNESDAY, 20TH DEC :—AFTERNOON, 2 TO 4.

Examiner,.....L. R. GREGOR, B.A.

1. Translate :—

(*a*) O Tannenbaum, O Tannenbaum
Wie treu sind deine Blätter!
Du grünst nicht nur zur Sommerzeit,
Sondren auch im Winter, wenn es schneit.

(*b*) Der Kaufmann muszte den Mantelsack abschnallen, auf die Schulter nehmen, und zu Fusz nach Hause gehen, wo er spät erst in der Nacht anlangte.

(*c*) Beide verloren das Gleichgewicht und stürzten hinab in den reiszenden Waldstrom.

2. Give the nominative plural of the following substantives :—

mother	apple,	bishop,
eagle,	guest,	cousin,
brother-in-law,	harbour,	flower,
soldier,	dog,	christian,
messenger,	deed,	volume,
forest,	bed,	child.

3. Conjugate the present indicative of *tanzen*, future simple of any verb, the present subjunctive of *sein*, past conditional of *loben*.

4. Give the prepositions which govern :—(*a*) the accusative, (*b*) the dative (*c*) the accusative and dative

5. (*a*) Die Schweiz.

(*b*) Das schöne Frankreich.

(*c*) Das Gold ist schwer.

Comment on the use of the definite article in the each of preceding cases.

6. Decline the first and second persons of the personal pronoun, singular and plural.

7. What classes of substantives are declined like *Hund*?

8. State what you know about the order of :—(*a*) pronouns in general, (*b*) personal pronouns, (*c*) adverbs.

Translate into German :—

(*a*) The beggar would have had no shoes.

(*b*) Her father has bought her a ring.

(*c*) I sent him a letter yesterday.

(*d*) Our father lived at peace with his neighbours.

(*e*) Charles, you have answered well.

(*f*) You are tired because you have studied too much.

(*g*) My sisters were living in a convent.

(*h*) He has injured himself already.

(*i*) The teacher is ashamed of her.

(*j*) The emperor is satisfied with his generals.

FIRST YEAR GERMAN.

THURSDAY, APRIL 12TH :—AFTERNOON, 2 TO 3.30.

Examiner,..... .....L. R. GREGOR, B.A.

Joynes' German Reader, Van der Smissen's Grammar.

1. Translate into English :—

(*a*) Der älteste wollte ein Hufschmied, der zweite ein Barbier, der dritte aber ein Fechtmeister werden.

(*b*) Der kalten Brust fehlt Kraft und Lust
Und ihre That wird Wind.

(*c*) Ein hungriger Fuchs hörte einen Hahn auf einem Baume krähen. Wie schön du singst! sagte er.

(*d*) Als nun der Engel aufgestanden war, aß er wieder mit ihnen und wollte dann seines Weges ziehen.

2. Translate into German : —

(*a*) Would you be happy if you were rich ?

(*b*) Have you heard the words of this orator ?

(*c*) I have white paper, but my brother has blue.

(*d*) The carriages of the count will be sold to day.

(*e*) Where is the knife that you ground?

(*f*) He shot a hare and brought it home.

(*g*) The days in June are the longest in the whole year.

(*h*) Buying is pleasant, but paying is very disagreeable.

3. Give the three principal parts of the following verbs: suffer, cut, lend, drive, smell, pour, freeze, pull.

4. Decline in the singular *black bread, the new ink.*

5. (*a*) Decline *the city of Rome.* (*b*) Give the genders of Beil chen, Landschaft, Universität, Hoffnung. (*c*) Turn the following sentence into the passive voice, Er hat mir Hülfe versprochen. (*d*) What are the following words declined like: the pronoun seines-Der Reisende, ein reicherer Mann? (*e*) What kind of antecedent may the pronoun was have?

6. Give the third person singular of the following tenses: present indicative passive, simple future passive of loben, imperfect subjunctive and perfect subjunctive of singen. Translate: I had fallen, I shall have fallen, I have praised, I shall have been.

SECOND YEAR GERMAN.

WEDNESDAY, DEC. 20TH, 1893:—AFTERNOON, 2 TO 4.

Examiner,.....L. R. GREGOR, B.A.

1. Translate:—

(*a*) "Wenn ich's recht überlege," sprach er mit sich selbst, "habe ich noch Vorteil bei dem Tausch: erstlich den guten Braten, hernach die Menge von Fett, die herausträufeln wird, das gibt Gänsefettbrot auf ein Vierteljahr."

(*b*) Als es nun Abend war, wollte Aschenputtel fort, und der Königssohn wollte es begleiten, aber es entsprang ihm so geschwind, dass er nicht folgen konnte. Der Königssohn hatte aber eine List gebraucht und hatte die ganze Treppe mit Pech bestreichen lassen.

(*c*) Plötzlich blieb er stehen: "Was sind das für Kinder?" fragte er den ihm folgenden Herrn, seinen Geheimschreiber, und deutete auf eine Gruppe von zwei Kindern, die mit grossem Eifer einen jungen Rosenstock pflanzten.

(*d*) Zwei lange Jahre waren vergangen, die ersten Reformationskämpfe waren an Breisach vorüber gezogen. Hans hatte sich durch nichts beirren lassen, unverdrossen hatte er weiter gearbeitet, ohne nach rechts oder nach links zu schauen, und endlich im Sommer des Jahres 1525 erschien er auf dem Rathaus und erklärte das Werk als vollendet.

(*e*) Einige junge Bursche liefen hinaus, brachen in aller Eile Zweige vom Rosenbäumchen und flochten zwei Kränze für das Brautpaar. Unter lautem Beifall krönten sie den Meister und seine Braut. Aber demüthig nahm Hans seinen Kranz ab und legte ihn auf den Altar nieder.

2. Translate:—

(*a*) All America does not belong to the United States.

(*b*) The days are longest in the month of June.

(*c*) People take cold easily when they are tired.

(*d*) Then he hurried away, but not into his house. He went up to his old friend the emperor's tree.

(*e*) The only thing I got in a present was the knife of Emperor Max, and I did not beg for that.

3. Translate:—

Four times, the fourth part, of four kinds, four and a half, fourfold, four o'clock, four minutes past four, fourthly.

4. Decline in the singular: (*a*) the demonstrative *der* used substantively; (*b*) *Karl der Erste*.

5. Give the principal parts of the following verbs: find, hide, throw, run, come, break, create, stand, take.

6. Dictation.

7. Translation into English of a passage read aloud

INTERMEDIATE EXAMINATIONS.

GERMAN.

April 12th, 1894:—Afternoon, 2 to 5.

Examiner,.....L. R. Gregor, B.A.

Von Hillern—Höher als die Kirche;
Storm—Immensee; Adler's German Reader;
Van der Smissen's German Grammar; Notes on Literature.

1. Translate into English:—

„Ich danke vielmals!" war alles, was er herausbrachte, aber in den dunkeln Augen des Knaben loderte ein helles Freudenfeuer auf und überschüttete den Kaiser wie mit einem Funkenregen von Liebe und Dankbarkeit.

„Willst du nicht zu deinen Vettern nach Nürnberg gehen und ihnen helfen, Platten schneiden? Da giebt's viel Arbeit."

(*b*) So traten sie ihren Rückweg an; das Erdbeerensuchen hatten sie aufgegeben, denn Elisabeth war müde geworden. Endlich klang zwischen den Bäumen hindurch das Lachen der Gesellschaft: dann sahen sie auch ein weißes Tuch am Boden schimmern, das war die Tafel, und darauf standen Erdbeeren in Hülle und Fülle.

(*c*) Die Mutter saß inzwischen emsig an ihrer Näherei, Erich hatte die Hände in einander gelegt und hörte andächtig zu. Als das Lied zu Ende war, legte Reinhardt das Blatt schweigend bei Sei.—Vom Ufer des Sees herauf kam durch die Abendstille dasen Geläute der Herdenglocken; sie horchten unwillkürlich; da hörten sie eine klare Knabenstimme singen:

2. Translation at sight:—

Aber seht doch, Kinder, es ist ja Baron Schenkfeldt; kennt Ihr ihn nicht?" rief der Schmied.

"Ah!" erscholl es von allen Seiten. "Richtig, Baron Schenkfeldt! Aber wer ist der andere Reiter?"

"Sein Sohn jedenfalls! Wer sollte es anders sein? Er soll recht krank sein, und der Doktor will ihn in Pflege nehmen. Seh

doch, wie blaß und jämmerlich er aussieht," fügte er mitleidig hinzu, als die Reiter gerade an der Schmiede vorbei kamen.

Baron Schenkfeldt, ein stattlicher Herr mit freundlichen Augen und silberweißen Haaren, winkte der kleinen Gruppe wohlwollend zu während der Sohn ruhig an seiner Seite ritt, ohne seine Augen, die durch eine große, dunkelblaue Brille gegen das grelle Sonnenlicht geschützt waren, zu erheben.

3. Translate into German :—

(*a*) He sat down in order to work, but he had no thoughts. After he had tried an hour long in vain, he went down into the family room. There was nobody there, only cool green twilight. On Elizabeth's sewing table lay a red ribbon. (*b*) The count was at the hunt with his huntsman and his (i. e. the huntsman's) dogs. (*c*) The eldest son of the Queen of England was born the ninth of November, one thousand eight hundred and forty-one. (*d*) The coachman drove first to the post-office and then to the bank.

[For students of McGill College only.]

4. Translate into English :—

Sie singen von Lenz und Liebe, von sel'ger goldner Zeit
Von Freiheit, Männerwürde, von Treu' und Heiligkeit,
Sie singen von allem Süßen, was Menschenbrust durchbebt,
Sie singen von allem Hohen, was Menschenherz erhebt.

(*a*) What do you know about Hans Sachs? (*b*) Name five great dramas which Schiller composed in the latter part of his life. (*c*) Tell what you know about any one of them.

[For students of affiliated colleges only.]

4. (*a*) "Da drüben werden auch wohl genug Menschen sterben," sagte ich und schaute hinüberüber das weite nächtige Thal, wo hinter dem Kaiserstuhl eine rote Lohe auf und niederschwankte—der Brand von Neubreisach. Schwere Schneewolken verdunkelten den Mond und die Röte hob sich um so greller von dem schwarzen Hintergrund ab.

(*b*) Die Stürme um Breisach zogen heran, die Bauern des Kaiserstuhls standen in Waffen auf für die neue Lehre, und immer mehr Anhang strömte ihnen zu. Die Stadt zitterte für ihren alten Glauben, und während sie sich nach außen befestigte und in Verteidigungszustand setzte, rief ihr Erzherzog Ferdinand, der Enkel Kaiser Maximilians, auch nach innen alles zu thun, was den alten Glauben stärken und befestigen könne.

THIRD YEAR GERMAN.

FRIDAY, APRIL 6TH :—MORNING, 9 TO 12.

Examiner..... .....L. R. GREGOR, B.A.

Lessing—Minna von Barnhelm; Schiller—Belagerung von Antwerpen; Bernhardt—History of German Literature; Van der Smissen's German Grammar.

N.B.—Questions expressed in German are to be answered in German. In question 7, 8, answer either (*a*) or (*b*).

1. Translate into English :—

(*a*). Die vereinigten Provinzen nämlich, durch eine Reihe von Unglücksfällen kleinmütig gemacht, hatten endlich den Entschluss gefaszt, unter die Oberhoheit Frankreichs zu treten und durch Aufopferung ihrer Unabhängigkeit ihre Existenz und ihre alten Privilegien zu retten.

(*b*). In der That war das Glück den Belagerten noch nie so günstig gewesen, als in diesem Augenblick. Die Feinde hatten sich mutlos und erschöpft in ihre Schanzen geworfen, und weit entfernt, den Siegern den eroberten Posten streitig machen zu können, sahen sie sich vielmehr selbst in ihren Zufluchtsörtern belagert.

(*c*). Aber sowohl die Lage als die Befestigung dieser Stadt schienen jedem Angriffe Trotz zu bieten. Von der brabantischen Seite mit unersteiglichen Werken und wasserreichen Graben umschlossen, von der flandrischen durch den breiten und reiszenden Strom der Schelde gedeckt, konnte sie mit stürmender Hand nicht bezwungen werden.

(*d*). Das Fräulein.

Du Quálgeist! Warte, Franziska, er soll dir es gedenken!—Doch schwatze nur; sonst schlafen wir wieder ein.—Sein Regiment ward nach dem Frieden zerrissen. Wer weisz, in welche Verwirrung von

Rechnungen und Nachweisungen er dadurch geraten? Wer weisz zu welchem andern Regimente, in welche entlegene Provinz er versetz, worden? Wer weisz, welche Umstände—Es pocht jemand.

Franziska.

Herein!

(*e*). Tellheim. Sei nicht verdrieszlich, Werner! Ich erkenne dein Herz und deine Liebe zu mir. Aber ich brauche dein Geld nicht.

Werner. Sie brauchen es nicht? Und verkaufen lieber und ver setzen lieber und bringen sich lieber in der Leute Mäuler?

Tellheim. Die Leute mögen es immer wissen, dasz ich nichts mehr habe. Man musz nicht reicher scheinen wollen, als man ist.

(*f*). Ich ward Soldat aus Parteilichkeit, ich weisz selbst nicht für welche politische Grundsätze, und aus der Grille, dasz es für jeden ehrlichen Mann gut sei, sich in diesem Stande eine Zeitlang zu ver seuchen und sich mit allem, was Gefahr heiszt, vertraulich zu ma chen und Kälte und Entschlossenheit zu lernen.

2. Translate into German:

(*a*). I had already put on my hat, and was just on the point of going out when the rain began. (*b*). I am sorry that I have not been able to come sooner. (*c*). If you do not dress more warmly, you will catch cold. (*d*). Were you allowed to stay? No, we had to go away again immediately. (*e*). The battle of Waterloo took place on the 18th of June in the year 1815. (*f*). If I had thought of that, I should have gone to meet you.

3. Distinguish between the separable and inseparable use of *durch*. Illustrate with well-composed sentences.

4. Conjugate the singular of the present indicative of *können*, *mögen*, *müssen*, *dürfen*. Translate: I have been obliged to do it. Explain the construction.

5. Wie heiszen Schiller's grosze historische Werke? Vergleichen Sie Schiller's Auffassung der Geschichte mit derjenigen der neueren Zeit.

6. Schreiben Sie eine kurze Biographie Goethes bis zu seiner Abreise nach Weimar.

7. Beschreiben Sie (*a*) Wieland's "Oberon," (*b*) Lessing's "Nathan der Weise."

8. (*a*) Beschreiben Sie Opitzens Reform der deutschen Metrik (*b*) Was ist eine Robinsonade?

FIRST YEAR APPLIED SCIENCE.

GERMAN.

SATURDAY, MARCH 31ST:—AFTERNOON, 2 TO 3.30.

Examiner,..... ... .L. R. GREGOR, B.A.

Joynes' German Reader, Van der Smissen's Grammar.

1. Translate into English :—

(*a*) „Wenn der ganze Berg abgewetzt iſt, ſagte das Hirtenbübchein," dann iſt die erſte Sekunde in der Ewigkeit vorbei."

(*b*) Ein Eichhorn hörte ſchon an ſeiner Mutter Bruſt
Den Wohlgeſchmack der Mandeln preiſen.

(*c*) Der Faulenzer legte ſich auf die andere Seite und ſchnarchte, während die andern arbeiteten.

(*d*) Spät abends kam er zu einem Wirtshaus, und weil er nicht weiter fahren wollte, ſo kehrte er ein.

2. Translate into German :—

(*a*) You have Goethe's works in your library.

(*b*) I blame George because he wastes his money.

(*c*) During the tempest the wind shook the house.

(*d*) I always burn the newspapers I do not need.

(*e*) Why is this girl not believed ?

(*f*) Where does the painter live who painted our house ?

(*g*) We have looked for William's books and ours everywhere.

(*h*) I do not believe every story I hear.

3. Give the three principal parts of the following verbs : pinch, fling, be silent, shine, shoot, enjoy, fly, lose.

4 Decline in the singular the German for *this young woman*, *ick child*.

5. (*a*) Decline the relative pronoun der in the plural. (*b*) Give each gender, meaning and plural form of Thor. (*c*) Diese Brücke wurde vor zehn Jahren gebaut. Diese Brücke war vor zehn Jahren gebaut. Explain the difference, stating the general principle. (*d*) My book and *his*. Translate *his* in all possible ways. (*e*) Give the comparative of viel, hoch, gut.

6. Give the first person singular of the following tenses: imperfect indicative and imperfect subjunctive of sein, pluperfect indicative passive and future perfect indicative passive of loben. Give the past participle of schreiben and reiten. Translate: I shall fall, I shall have fallen.

THIRD YEAR HONOURS.

MARCH 22ND, 1894:—AFTERNOON, 2 TO 5.

Examiner,... ..... L. R. GREGOR, B.A.

Faust (Part I.): Gostwich and Harrison's History of German Literature.

1. Translate:—

(*a*) The third and fourth verses of the Zueignung.

(*b*) Lines 1498–1514, beginning with Verachte nur Vernunft .....

(*c*) Lines 3267–3292, beginning with Wenn ich so sasy.....

2. Comment on the following lines:—

(*a*) Für solche halbe Höllenbrut
Ist Salomonis Schlüssel gut.

(*b*) Bring' häuslich Hülfe,
Incubus! incubus.

(*c*) Erwarte nicht
Das dreimal glühende Licht.

(*d*) Da ward ein roter Leu, ein kühner Freier
In lauen Bad der Lilie vermählt.

(*e*) Wir kochen breite Bettelsuppen.

THIRD YEAR HONOURS.

MARCH 22ND, 1894:—AFTERNOON, 2 TO 5.

Examiner,.....L. R. GREGOR, B.A.

Faust (Part. I.); Gostwick and Harrison's History of German Literature.

1. Translate:—

(*a*) The third and fourth verses of the Zueignung.

(*b*) Lines 1498-1514, Verachte nur Vernunft, etc.

(*c*) Lines 3267-3292, Wenn ich so sasz, etc.

2. Comment on the following lines:—

(*a*) Für solche halbe Höllenbrut
Ist Salomonis Schlüssel gut.

(*b*) Bring' häusliche Hülfe,
Incubus! incubus.

(*c*) Erwarte nicht
Das dreimal glühende Licht.

(*d*) Da ward ein roter Leu, ein kühner Freier
Im lauen Bad der Lilie vermählt.

(*e*) Wir kochen breite Battelsuppen.

3. Analyse the contents of the Vorspiel auf dem Theater.

4. Give the substance of Faust's conversation with the Earth Spirit. What is meant by the Earth Spirit?

5. In what relation does the Brocken scene stand to the development of Faust's character?

6. Describe the circumstances which led Gœthe to resume his Faust in 1824.

7. Describe fully (*a*) Marlowe's, (*b*) Lessing's connection with the Faust legend.

(*c*) Which of the Volksbücher contains all the main features which Gœthe's Faust owes to the legend?

8. Tell all that you know about Winckelmann's History of Ancient Art.

9. What are the contents of Gellert's fables? Give proof of his popularity.

10. What was Klopstock's opinion of the French Revolution in its outbreak? What change subsequently came over this opinion?

11. What did Gœthe say about Wieland's Oberon? Give the names of Wiedland's other works.

12. Describe Herder's connection with Gœthe.

13. Tell briefly the story of Hermann and Dorothea.

14. What did Shiller and Madame de Staël think and say of each other?

15. Give a life of Lessing, mentioning the name of his works.

THIRD YEAR HONOURS.

FRIDAY, MARCH 30TH:—AFTERNOON, 2 TO 5.

Examiner,..... L. R. GREGOR, B.A.

Lessing—Laokoon; Schiller—Wilhelm Tell; Heine—Die Harzreise; Macmillan; German Composition.

1. Translate into English:—

(*a*) Laokoon, Chapter III. Unter der alten Malern.....gewußt hat.

(*b*) Laokoon, Chapter V. Es giebt Kenner..... für den Künstler.

(*c*) Die Harzreise (Macmillan's; Foreign School classics) p. 20. Die meisten Bergarbeiter..... Nichte.

(*d*) Wilhelm Tell, Act II, Scene II. Durch der Sureinen..... geselligt lebender Menschen.

(*e*) Wilhelm Tell, Act IV, Scene III. Durch diese hohle..... abgelaufen.

2. Translate into German:—

(*a*) A certain Greek, called Argus, the fabulists of antiquity tell us, could see everything around him, because he had a hundred eyes. Of these only two at a time were allowed to enjoy sleep, whilst all the rest were wide awake.

(*b*) Soon after a war broke out, in the course of which the whole country was laid waste.

(*c*) One day a beautiful park was opened in Vienna for the recreation of the people. Hitherto only the nobility had been admitted to it.

3. Comment on the following:—

(*a*) Als ich konfilliert wurde, (*b*) Promotionsfutschen. (*c*) Philister, (*d*) ordentliche und unordentliche Professoren. (*e*) Profit. (*f*) Noder palumpietus. (*g*) Sanft Sebladuas.

4. What did Heine think of Napoleon?—of Prussia? Mention literary celebrities who were his friends in Paris.

5. Mention the names of the chroniclers whom Schiller followed in his Tell. Give some examples of the closeness with which he adhered to his sources.

6. Write a German composition of not less than one hundred words on Ulrich and Bertha.

7. Comment briefly on the following: (*a*) Der Stier von Uri, (*b*) Matten, (*c*) der graue Thalvogt, (*d*) Der Föhn, (*e*) der höchste Blutbann, (*f*) Favenz.

8. What moment according to Lessing should the painter and sculptor choose for representation? Illustrate from the Laokoon group.

3. Analyse the contents of the Vorspiel auf dem Theater.

4. Give the substance of Faust's conversation with the Earth Spirit. What is meant by the Earth Spirit?

5. In what relation does the Brocken scene stand to the development of Faust's character?

6. Describe the circumstances which led Goethe to resume his Faust in 1824.

7. Describe fully (*a*) Marlow's (*b*) Lessing connection with the Faust legend.

(*c*) Which of the Volksbücher contains all the main features which Goethe's Faust owes to the legend?

8. Tell all that you know about Winckelmann's History of Ancient Art.

9. What are the contents of Gellert's fables? Give proof of his popularity.

10. What was Klopstock's opinion of the French Revolution on its outbreak? What change subsequently came over this opinion?

11. What did Goethe say about Wieland's Oberon? Give the names of Wieland's other works.

12. Describe Herder's connection with Goethe.

13. Tell briefly the story of Herman and Dorothea.

14. What did Schiller and Madame de Staël think and say of each other?

15 Give a life of Lessing, mentioning the names of his works.

HEBREW.

B.A. ORDINARY.

MONDAY, APRIL 2ND:—9 TO 12.

Examiner,—PROF. D. COUSSIRAT, B.A., B.D., D.D., OFFICIER [d'ACADEMIE.

1. Translate literally:—

גּוּר אַרְיֵה יְהוּדָה מִטֶּרֶף בְּנִי עָלִיתָ כָּרַע רָבַץ כְּאַרְיֵה
וּכְלָבִיא מִי יְקִימֶנּוּ: לֹא־יָסוּר שֵׁבֶט מִיְּהוּדָה וּמְחֹקֵק מִבֵּין

רַגְלָיו עַד כִּי־יָבֹא שִׁילֹה וְלוֹ יִקְהַת עַמִּים: אֹסְרִי לַגֶּפֶן עִירָה וְלִשְׂרֵקָה בְּנִי אֲתֹנוֹ כִּבֵּס בַּיַּיִן לְבוּשׁוֹ וּבְדַם־עֲנָבִים סוּתֹה: חַכְלִילִי עֵינַיִם מִיָּיִן וּלְבֶן־שִׁנַּיִם מֵחָלָב:

(*a*) Parse fully (1) יִקְהַת (2) יִקְּחֵנוּ.

(*b*) Inflect Niphal Imperfect of קוּם.

(*c*) Make notes on שִׁילֹה.

2. Translate literally:

עֵינַי תָּמִיד אֶל־יְהוָה כִּי הוּא־יוֹצִיא מֵרֶשֶׁת רַגְלָי: פְּנֵה אֵלַי וְחָנֵּנִי כִּי־יָחִיד וְעָנִי אָנִי: צָרוֹת לְבָבִי הַרְחִיבוּ מִמְּצוּקוֹתַי הוֹצִיאֵנִי: רְאֵה עָנְיִי וַעֲמָלִי וְשָׂא לְכָל־חַטֹּאותָי:

(*a*) Parse (1) חָנֵּנִי (2) וְשָׂא.

(*b*) Give another reading of הַרְחִיבוּ מִמְּצוּקוֹתַי.

(*c*) Describe the class of people called עֲנָוִים.

(*d*) Remark on the form, contents and authorship of Psalm XXV.

3. Translate literally:—

הוֹי הָאֹמְרִים לָרַע טוֹב וְלַטּוֹב רָע שָׂמִים חֹשֶׁךְ לְאוֹר וְאוֹר לְחֹשֶׁךְ שָׂמִים מַר לְמָתוֹק וּמָתוֹק לְמָר: הוֹי חֲכָמִים בְּעֵינֵיהֶם וְנֶגֶד פְּנֵיהֶם נְבוֹנִים: הוֹי גִּבֹּרִים לִשְׁתּוֹת יָיִן וְאַנְשֵׁי־חַיִל לִמְסֹךְ שֵׁכָר: מְצַדִּיקֵי רָשָׁע עֵקֶב שֹׁחַד וְצִדְקַת צַדִּיקִים יָסִירוּ מִמֶּנּוּ:

(*a*) Distinguish between יַיִן and שֵׁכָר. Give the roots with their meaning.

(*b*) How are the participles used in that passage?

4. Translate literally:—

אִם־רוּחַ הַמּוֹשֵׁל תַּעֲלֵה עָלֶיךָ מְקוֹמְךָ אַל־תַּנַּח כִּי מַרְפֵּא יַנִּיחַ חֲטָאִים גְּדוֹלִים: יֵשׁ רָעָה רָאִיתִי תַּחַת הַשֶּׁמֶשׁ כִּשְׁגָגָה שֶׁיֹּצֵא מִלִּפְנֵי הַשַּׁלִּיט: נִתַּן הַסָּכָל בַּמְּרוֹמִים רַבִּים וַעֲשִׁירִים בַּשֵּׁפֶל יֵשְׁבוּ:

(*a*) Inflect מָקוֹם.

(*b*) What trace of Aramaism do you find in that passage?

5. Render into Hebrew: Cast your bread upon the waters for you shall find it after many days. Give ye a portion to seven and to eight, for you do not know what evil shall be.

6. Point and translate the following:

סכום הפסוקים של ישעיה אלף ומאתים ותשעים וחמישה. — יתקק —

7. How is the Infinitive absolute used in connection with a finite verb?

8. Explain the formation of the Talmud, and name some of the treaties which it contains.

HEBREW.

FIRST YEAR.

MONDAY, 2ND APRIL:—9 TO 12 A.M.

Examiner, PROF. D. COUSSIRAT, B.A., B.D., D.D., OFFICIER [d'ACADEMIE.

1. Translate literally:—

וַיֹּאמֶר אֱלֹהִים נַעֲשֶׂה אָדָם בְּצַלְמֵנוּ כִּדְמוּתֵנוּ וְיִרְדּוּ בִּדְגַת הַיָּם וּבְעוֹף הַשָּׁמַיִם וּבַבְּהֵמָה וּבְכָל־הָאָרֶץ וּבְכָל־הָרֶמֶשׂ הָרֹמֵשׂ עַל־הָאָרֶץ: וַיִּבְרָא אֱלֹהִים ׀ אֶת־הָאָדָם בְּצַלְמוֹ בְּצֶלֶם אֱלֹהִים בָּרָא אֹתוֹ זָכָר וּנְקֵבָה בָּרָא אֹתָם:

(*a*) Parse (1) נַעֲשֶׂה (2) וְיִרְדּוּ.

(*b*) Inflect צֶלֶם.

(*c*) Explain the use of Daghesh lene in that passage.

(*d*) Nature of the Holem in רֹמֵשׂ.

2. Translate literally:—

וַיִּקְרָא הָאָדָם שֵׁמוֹת לְכָל־הַבְּהֵמָה וּלְעוֹף הַשָּׁמַיִם וּלְכֹל חַיַּת הַשָּׂדֶה וּלְאָדָם לֹא־מָצָא עֵזֶר כְּנֶגְדּוֹ: וַיַּפֵּל יְהוָה אֱלֹהִים ׀ תַּרְדֵּמָה עַל־הָאָדָם וַיִּישָׁן וַיִּקַּח אַחַת מִצַּלְעֹתָיו

וּמִגֹּר בֵּיצָר תַּחְתֹּנָה: וַיִּבֶן יְהוָה אֱלֹהִים ׀ אֶת־הַצֵּלָע
אֲשֶׁר־לָקַח מִן־הָאָדָם לְאִשָּׁה וַיְבִאֶהָ אֶל־הָאָדָם:

(*a*) Give the singular of שָׁמוֹת.

(*b*) Analyze (1) כְּנִגְדּוֹ (2) מִצַּלְעֹתָיו.

(*c*) Parse fully (1) וַיִּפֶל (2) וַיִּישֵׁן. Explain the Qamets

(*d*) Give the Greek and Latin for תַּרְדֵּמָה.

(*e*) State the peculiarities of לָקַח in Kal.

(*f*) Inflect the Kal Imperfect of סָגַר.

3. Point: ויטע יהוה גן בעדן מקדם ויישם שם את האדם אשר יצר

4. Retranslate into Hebrew:—And blessed them God, saying: Be ye fruitful and multiply ye and fill ye the waters in the seas, and the fowl let multiply in the earth.

5. Give a Synopsis of the strong verb in Niphal.

6. Render into Hebrew:—(1) God made the great luminaries. (2) I know that thou art good. (3) The sun and the moon and the stars are in the expanse of the heavens.

HEBREW.

SECOND YEAR.

MONDAY, 2ND APRIL:—9 TO 12 A.M.

Examiner, PROF. COUSSIRAT, B.A., B.D., D.D., OFFICIER [d'ACADEMIE.

1. Translate literally:—

וַיֹּאמֶר לֵמֶךְ לְנָשָׁיו עָדָה וְצִלָּה שְׁמַעַן קוֹלִי נְשֵׁי לֶמֶךְ
הַאְזֵנָה אִמְרָתִי כִּי אִישׁ הָרַגְתִּי לְפִצְעִי וְיֶלֶד לְחַבֻּרָתִי:
כִּי שִׁבְעָתַיִם יֻקַּם־קָיִן וְלֶמֶךְ שִׁבְעִים וְשִׁבְעָה:

(*a*) Give the meaning of the proper names in that passage.

(*b*) What is the characteristic feature of Hebrew poetry?

(*c*) Write out the ordinary form of שְׁמַעַן.

(*d*) Parse fully (1) הַאְזֵנָה (2) לְפִצְעִי (3) יֻקַּם (4) לְנָשָׁיו

2. Translate literally:—

יְהוָה אִישׁ מִלְחָמָה יְהוָה שְׁמוֹ: מַרְכְּבֹת פַּרְעֹה וְחֵילוֹ
יָרֶה בַיָּם וּמִבְחַר שָׁלִשָׁיו טֻבְּעוּ בְיַם־סוּף: תְּהֹמֹת יְכַסְיֻמוּ
יָרְדוּ בִמְצוֹלֹת כְּמוֹ־אָבֶן: יְמִינְךָ יְהוָה נֶאְדָּרִי בַכֹּחַ יְמִינְךָ
יְהוָה תִּרְעַץ אוֹיֵב:

(*a*) What is the plural of אֶבֶן שֵׁם, אִישׁ?

(*b*) What is the meaning of the word פַּרְעֹה?

(*c*) What is the primary sense of טָבַע?

(*d*) Explain the form יְכַסְיֻמוּ

3. Translate literally:

וְזָכַרְתָּ כִּי־עֶבֶד הָיִיתָ ׀ בְּאֶרֶץ מִצְרַיִם וַיֹּצִאֲךָ יְהוָה אֱלֹהֶיךָ
מִשָּׁם בְּיָד חֲזָקָה וּבִזְרֹעַ נְטוּיָה עַל־כֵּן צִוְּךָ יְהוָה אֱלֹהֶיךָ
לַעֲשׂוֹת אֶת־יוֹם הַשַּׁבָּת: ס כַּבֵּד אֶת־אָבִיךָ וְאֶת־אִמֶּךָ
כַּאֲשֶׁר צִוְּךָ יְהוָה אֱלֹהֶיךָ לְמַעַן ׀ יַאֲרִיכֻן יָמֶיךָ וּלְמַעַן יִיטַב
לָךְ עַל הָאֲדָמָה אֲשֶׁר־יְהוָה אֱלֹהֶיךָ נֹתֵן לָךְ:

(*a*) Compare this text and Exodus XX. 11, 12.

(*b*) Parse fully (1) וַיֹּצִאֲךָ (2) יַאֲרִיכֻן. What is the ordinary form of these verbs?

(*c*) Inflect the Piel perfect of צִוָּה.

(*d*) What is a stative verb? Give an example.

(*e*) Inflect יוֹם.

4. State the characteristics of פ"נ verbs.

5. Render into Hebrew:—(1) The man knew good and evil. (2) Who did this? (2) Why didst thou kill the man whom I sent to thee?

6. Point and translate the following Masoretic note:

סכום פסוקי דספר ואלה שמות אלף ומאתים ותשעה׳
אר" ט סימן —חצי סדר פרק.—נ" א.

7. Explain the signs פ פ פ and פ and ס.

B.A. HONOURS.

W. WRIGHT:—Comparative Grammar of the Semitic Languages.

THURSDAY, 15TH MARCH:—2 TO 5 P.M.

Examiner,...PROF. D. COUSSIRAT, B.A., B.D., D.D., Officier d'Académie.

1. What is the relation of the Semitic languages to the Indo-European and the Egyptian?

2. Give a table of permutations of the various classes of letters in the Semitic alphabet.

3. What are the forms of the personal pronoun in Assyrian, Arabic, Ethiopic, Hebrew, Aramaic, Syriac, Talmudic and Mandaitic?

4. Explain the nature and use of Nunation and Mimation.

5. Describe the nominal forms underlying the inflexion of the verb.

6. Discuss the accentuation of the third person (masc. and plur.) in the perfect and imperfect.

7. What are the "energetic forms"? Give examples.

8. Enumerate the main real passive forms found in the Semitic languages.

9. Give the forms of the perfect (3rd pers. sing.) of the simple stem in verbs ו"ל and י"ל.

B.A. HONOURS.

SYRIAC.

THURSDAY, MARCH 22ND:—2 TO 5 P.M.

Examiner,.....PROF. D. COUSSIRAT, B.A., B.D., D.D., Officier d'Académie.

1. Transliterate and translate:—

We'odhom chekham lechawo' 'antteh webhetnath weyeldath leko'yên w'emrath. Kenith gabhro' lemaryo'. We'auspat lemeladh la'chu hobhêla Whewo hobhêl roce' 'ono'. Weko'yên hewo' polach ba'r'o'.

(*a*) Parse fully the verbs of verse 2.

(*b*) Inflect the noun for *man*.

(*c*) Compare the Syriac and Hebrew words for to know, to conceive, to acquire, sheep, ground.

2. Transliterate and translate:—

'Eno' 'Akyimeth malke 'al ssehyun turo' dhekudhsh deneshta'e' 'al keyom. Moryo' 'emar li dhebher 'ant. we'no' yaumono' yiledhtokh.

(*a*) Parse neshta'e'. Is it the correct translation from the Hebrew?

(*b*) Inflect the word for *King*.

(*c*) Explain how in that passage the suffixes are added to the nouns and verbs.

3. Transliterate and translate:—

Kad dên lo'sîn shekal yeshu' lachmo' webbarekh Wakesso' weya*h*b lethalmîdhau. We'mar sabh 'akhul honau pagr.

Washkal koso' w'audhî weya*h*b lehun we'mar. sabh 'eshtau menneh kulkun.

(*a*) Parse:—(1) lo'sîn. (2) Sabh. (3) pagr.

(*b*) Write an explanatory note on honau pagr, and translate it into Greek and Latin.

4. Write the Aphel of kom (tabular view).

5. Give a table of (1) the preformatives of the different stems, (2) the vowel of the first radical, (3) the vowel of the second radical in the strong verb.

6. Translate into Syriac:— (1) Hear ye what I have been commanded to say. (2) All that was good to me was evil to him. (3) Adam saw that the tree was good to look at.

B.A. HONOURS.

HEBREW.

SATURDAY, APRIL 7TH:—9 TO 12 A.M.

Examiner,.....PROF. D. COUSSIRAT, B.A, B.D., D.D., Officier d'Académie.

1. Translate literally Malachi I., 9–11 inclusive.

(*a*) Explain the ֵ under the י and the ֶ in מִיֶדְכֶם.

(*b*) Discuss the meaning of מִנְחָה טְהוֹרָה, with reference to the doctrine founded on that expression by the Church of Rome, and the teaching of Irenoeus, Origen, Jerome, Augustine and Chrysostom.

2. Translate literally Job XXVIII., 12–17.—

(*a*) Compare חָכְמָה and בִּינָה.

(*b*) Distinguish between תְּהוֹם and יָם in this passage.

(*c*) State what is known of כֹּתֶם אוֹפִיר.

3. Psalm XC,

(*a*) Analyze its contents.

(*b*) Discuss its authorship and probable date.

(*c*) Make short exegetical and syntactical notes, explaining the unusual and difficult forms, with occasional references to the version of the Septuagint.

4. Characterize the style of the book of Job.

B.A. HONOURS.

HISTORY OF THE SEMITIC LANGUAGES.

WEDNESDAY, 11TH APRIL:—9 TO 12 A.M.

Examiner,...PROF. D. COUSSIRAT, B.A., B.D., D.D.,
Officier d'Académie.

1. Enumerate the Semitic Languages, and point out their mutual connection.

2. Characterize the Semitic mind.

3. Give a short history of the literary development of Hebrew.

4. Compare Phoenician with Hebrew.

5. What are the characteristics of Aramaic?

6. Point out the main features of classical Arabic.

7. Show by a few examples the importance of inscriptions for a better knowledge of some Semitic Languages.

8. State the peculiarities of the Samaritan dialect.

THIRD YEAR HONOURS

SAYCE: ORIGIN OF RELIGION.

TUESDAY, APRIL 17TH A.M.

Examiner,..... .....PROF. COUSSIRAT, B.A., B.D., D.D.
OFFICIER D'ACADEMIE.

Write as fully as you can on the following subjects:—

(1) Connection between Babylonian and Hebrew religion.
(2) Doctrine of the resurrection among the Babylonians.
(3) General character of Babylonian religion.
(4) Doctrine of the origin of evil in the same religion.
(5) The descent of Istar into Hades.
(6) The dream of Assur-bani-pal.
(7) Early Chaldaeans totems.
(8) The Accadian language.
(9) Babylonian Astronomy.
(10) Origin and Contents of the Magical Texts.

THIRD YEAR HONOURS.

LENORMANT'S BEGINNINGS OF HISTORY.

FRIDAY, 20TH APRIL :—9 TO 12 A.M.

Examiner,..... .....PROF. COUSSIRAT B.A., B.D., D.D.,
OFFICIER d'ACADEMIE.

(1) State Lenormant's views on:

(*a*) The Creation;—(*b*) The first sin;—(*c*) The Kerubim;—(*d*) The Shethites and the Qainites;—(*e*) The ten antediluvian Patriarchs;—(*f*) The Children of God;—(*g*) The Deluge.

2. State what you know on the following subjects:

(1) The creation in the doctrines of Iranian Mazdœism.

(2) The serpent in the storm of the Vedas.

(3) The Aryanist school in Biblical exegesis.

(4) Trace of a primitive time when numeration did not exceed ten.

(5) First Phœnician cosmogony of the Sanchoniathon of Philo of Byblos.

(6) Generations of the chief divinities of the Chaldeo-Assyrian religion.

THIRD YEAR HONOURS.

SYRIAC.

THURSDAY, MARCH 22ND :—2 TO 5 P.M.

Examiner. ....PROF. D. COUSSIRAT, B.A., B.D., D.D., Officier d'Académie.

1. Transliterate and translate :—

We'odhom chekham lechawo' 'antteh webhetnath weyeldath leko'yên we'emrath. Kenith gabhro' lemoryo.' We'auspat leme'ladh la'chu hobhêl Wahewo' hobhêl roʿe' 'ono'. Weko'ên hewo' polach ba'r'o'.

(*a*) Parse fully the verbs of verse 2.

(*b*) Inflect the noun for *man*.

(*c*) Compare the Syriac and Hebrew words for to know, to conceive, to acquire, sheep, ground.

2. Transliterate and translate :

'Eno' 'Akyimeth malke 'al ssebyun turo' dhekudhsh deneshtaʿe' 'al keyom. Moryo' 'emar li dhebher 'ant. we'no' yaumono' yiledhtokh.

(*a*) Parse neshtaʿe'. Is it the correct translation from the Hebrew ?

(*b*) Inflect the work for *King*.

(*c*) Explain how in that passage the suffixes are added to the nouns and verbs.

3. Transliterate and translate :—

Kad dên loʿsin shekal yeshuʿ lachmo' webharekh Wakesso' weyahb lethalmdihau. We'mar sabh 'akhul honau pagr.

Washkal koso' w'auehi weyahb lehun we'mar. sabh 'eshtau menneh kulkun.

(*a*) Parse :—(1) loʿsin. (2) Sabh. (3) pagr.

(*b*) Write an explanatory note on honau pagr, and translate it into Greek and Latin.

4. Write the Aphel of kom (tabular view).

5. Give a table of (1) the preformatives of the different stems, (2) the vowel of the first radical, (3) the vowel of the second radical in the strong verb.

6. Translate into Syriac :—(1) Hear ye what I have been commanded to say. (2) All that was good to me was evil to him. (3) Adam saw that the tree was good to look at.

THIRD YEAR HONOURS.

HEBREW.

TUESDAY, APRIL 24:—9 TO 12 A M.

Examiner,.....PROF. COUSSIRAT, B.A.; B.D.; D.D.; [OFFICIER d'ACADEMIE.

1 Translate literally: Genesis XLV, 21-24 inclusive.

(*a*) Make notes on (1) פַּרְעֹה (2) בִּנְיָמִן (3) מִצְרַיִם.

(*b*) Give the rules of the Numerals in Hebrew.

(*c*) Explain the force of תִּרְגְּזוּ.

2. Translate literally Isaiah XLV, 1-5 inclusive.

(*a*) Who was כֹּרֶשׁ? In what sense is he the מְשִׁיחַ יְהוָה?

State the position of the Higher Criticism in respect to that prophecy.

(*b*) Parse (1) לְרַד (2) אֲוַשֵּׁר.

(*c*) Distinguish between דְּלָתַיִם and שְׁעָרִים.

(*b*) Point out the characteristics of verbs פ"ו.

3. Translate literally Isaiah LI., 19-23.

(*a*) Parse the verbs in verse 23.

(*b*) Remark on the peculiar form of שְׁתַּיִם.

(*c*) How are the pronominal suffixes joined to the Imperfect of verbs.

(*d*) Point and translate the Masoretic notes in chapter LI.

4. Translate literally Ecclesiastes VI, 7-12.

(*a*) Give the different meanings of נֶפֶשׁ.

(*b*) Write a Synopsis of נָגַד in Hiphil.

(*c*) Inflect שֵׁם.

(*d*) Is that passage a proof of the skepticism of the author?

5. Examine critically the following statement of Knobel: "In these chapters (Isaiah XL. to LXVI.) are found a great many ex-

pressions that occur only in them, or at least only in the later books besides, and that for the most part need to be explained from the Aramaic."

B.A. HONOURS.

TRANSLATION AT SIGHT.—HEBREW COMPOSITION.

FRIDAY, APRIL 13TH.—9 TO 12 A.M.

Examiner,..... .....PROF. D. COUSSIRAT B.A.; B.D.; D.D.; OFFICIER d'ACADEMIE.

1. Translate :

בחדש השביעי בשנת שתים לדריוש היה דבר־יהוה
אל־זכריה בן־ברכיה בן־עדו הנביא לאמר: קצף יהוה
על־אבותיכם קצף: ואמרת אלהם כה אמר יהוה
צבאות שובו אלי נאם יהוה צבאות ואשוב אליכם אמר
יהוה צבאות: אל־תהיו כאבותיכם אשר קראו־אליהם
הנביאים הראשנים לאמר כה אמר יהוה צבאות שובו נא
מדרכיכם הרעים ומעלליכם הרעים ולא שמעו ולא־
הקשיבו אלי נאם־יהוה: אבותיכם איהם והנבאים
הלעולם יחיו: אך דברי וחקי אשר צויתי את־עבדי
הנביאים הלוא השיגו אבתיכם וישובו ויאמרו כאשר זמם
יהוה צבאות לעשות לנו כדרכינו וכמעלליגו כן עשה
אתנו: ביום עשרים וארבעה לעשתי־עשר חדש
הוא־חדש שבט בשנת שתים לדריוש היה דבר־יהוה אל־
זכריה בן־ברכיהו בן־עדוא הנביא לאמר:

2. Render into Hebrew :—

The soul of all living bless thy name, O Lord, our God! and the spirit of all flesh shall continually glorify and extol thy memorial, O our King! for from everlasting to everlasting thou art God,

and besides thee, we have no King, Redeemer, or Saviour; who redeemeth, delivereth, maintaineth and hath compassion with us, in all times of trouble and distress; we have no King but thee. Thou art God of the first, and God of the last, the God of all Creatures, the Lord of all generations; who is adored with all manner of praises; who governeth the world with tenderness, and his creatures with mercy..... And, therefore, unto thee who art God alone will we render adoration. We bless thy name for the innumerable benefits which thou hast conferred on us and our ancestors.

THIRD YEAR HONORS.

TRANSLATION AT SIGHT.—HEBREW COMPOSITION.

WEDNESDAY, 25TH APRIL, 9 TO 12 A.M.

Examiner, ...PROF. COUSSIRAT B.A.; B.D.; D.D.; [OFFICIER d'ACADEMIE.

1. Translate—

וְאַתָּה בֵּית־לֶחֶם אֶפְרָתָה צָעִיר לִהְוֹת בְּאַלְפֵי יְהוּדָה מִמְּךָ
לִי יֵצֵא לִהְיוֹת מוֹשֵׁל בְּיִשְׂרָאֵל וּמוֹצָאֹתָיו מִקֶּדֶם מִימֵי עוֹלָם:
לָכֵן יִתְּנֵם עַד־עֵת יוֹלֵדָה יָלָדָה וְיֶתֶר אֶחָיו יְשׁוּבוּן עַל־בְּנֵי
יִשְׂרָאֵל: וְעָמַד וְרָעָה בְּעֹז יְהוָה בִּגְאוֹן שֵׁם יְהוָה אֱלֹהָיו
וְיָשָׁבוּ כִּי־עַתָּה יִגְדַּל עַד־אַפְסֵי־אָרֶץ: וְהָיָה זֶה שָׁלוֹם
אַשּׁוּר ׀ כִּי־יָבוֹא בְאַרְצֵנוּ וְכִי יִדְרֹךְ בְּאַרְמְנוֹתֵינוּ וְהַקַּמְנוּ
עָלָיו שִׁבְעָה רֹעִים וּשְׁמֹנָה נְסִיכֵי אָדָם: וְרָעוּ אֶת־אֶרֶץ
אַשּׁוּר בַּחֶרֶב וְאֶת־אֶרֶץ נִמְרוֹד בְּפִתְחֶיהָ וְהִצִּיל מֵאַשּׁוּר
כִּי־יָבוֹא בְאַרְצֵנוּ וְכִי־יִדְרֹךְ בִּגְבוּלֵנוּ: וְהָיָה ׀ שְׁאֵרִית יַעֲקֹב
בְּקֶרֶב עַמִּים רַבִּים כְּטַל מֵאֵת יְהוָה כִּרְבִיבִים עָלֵי־עֵשֶׂב
אֲשֶׁר לֹא־יְקַוֶּה לְאִישׁ וְלֹא יְיַחֵל לִבְנֵי אָדָם:

2. Render into Hebrew:

I believe, with a firm faith, that God, blessed be his name, is the Creator and Governor of all created beings;—that the Creator is One

God, who was, who is and who will be; that he is not corporeal;—that he is the only one to whom it is proper to address our prayers;—that all the words of the prophets are true;—that the whole law which we have in our possession is the same law which was given to our teacher Moses (upon whom be peace);—that the Creator rewardeth those who observe his commandments, and punisheth those who transgress them:—I believe in the coming of Messiah.—I believe that the dead will be called to life. For thy salvation I have waited, O Lord!—

THE NEIL STEWART PRIZE.

TRANSLATION.

THURSDAY, APRIL 19TH:—9 TO 12 A. M.

Examiner.....PROF. COUSSIRAT, B.A.; B.D.; D.D.; [OFFICIER D'ACADEMIE.

1. Translate literally Exodus III, 13-15 inclusive.

(*a*) Parse (1) יְשָׁרְחָנִי. Explain the change of vowels in that word. (2) זִכְרִי.

(*b*) Remark on the definition of God by אֶהְיֶה אֲשֶׁר אֶהְיֶה.

2. Translate literally Exodus XL, 17-21.

(*a*) Parse (1) הוּקַם (2) וַיָּסֶךְ

(*b*) Describe the (1) מִשְׁכָּן (2) עֵדוּת (3) אָרֹן (4) כַּפֹּרֶת.

3. Translate literally Isaiah LII, 13-15.

(*a*) Who is the עֶבֶד יְהוָה?

(*b*) What kinds of parallelism do you find in those verses?

(*c*) Parse (1) מִשְׁחַת (2) יָזֶה.

4. Translate literally Isaiah LXIII, 16-19.

(*a*) Does the Authorised Version follow the Masoretic accents in the last part of verse 16?

(*b*) State the office of the גֹּאֵל among the Israelites.

(*c*) Parse (1) תַּתְעֵנוּ (2) נָזֹלוּ.

GESENIUS' GRAMMAR

TUESDAY, APRIL 24TH :—9 TO 12 A.M.

Examiner..... .....PROF. COUSSIRAT B.A. ; B.D.; D.D. ; OFFICIER d'ACADEMIE.

1. Write in Hebrew letters 1894.

2. Explain the following abbreviations (1) יי"ש (2) פ' (3) וגו' (4) ק"

3. In what respect does the pronunciation of the Polish and German Jews differ from that of the Spanish and Portuguese Jews ?

4. State the meaning of the names of the vowels.

5. Are there any diphthongs in Hebrew ?

6. How do you distinguish between Qamets and Qamets-Chatuph ?

7. Rules to know when a vowel is unchangeable.

8. Synopsis of סָבַב in Niphal and Hophal.

9. Write the Kal Infinitive construct of (1) נָגַשׁ (2) סָבַב (3) יָשַׁב (4) גָּלָה.

10. Inflect the Niphal perfect and the Hiphil perfect of קוּם.

11. Inflect (1) צְדָקָה (2) חֹק (3) קָדֵשׁ

12 State the different uses of the construct state.

NATURAL SCIENCES.

BOTANY.

I.

MONDAY, APRIL 16TH :—9 TO 12 A.M. AND 2 TO 5 P.M.

Examiner,..... ....D. P. PENHALLOW, B.Sc.

1. Give a concise account of the structure of (1) a bean, (2) a wheat seed, and in each case show the character of the organs produced in germination.

2. Give an explanation of the term Biology, and show what this science comprises.

3. Give a concise account of the ameboid movement of protoplasm, and show (1) how it may be influenced by external agencies and (2) in what forms of life it is manifested.

4. Give an account of the structure and distribution of the epidermis, and show how it may be modified under different conditions, *e. g.*, of light and shade.

5. State what you can concerning the mechanism of roots in absorbing water from the soil.

6. Explain fully the application of the terms herb, shrub and tree, with respect to duration, size, and habit of growth. Examples.

7. Give a full account of the internal structure of a leaf, and show what alterations may be induced by different conditions of exposure to light and shade. Show the bearing of such modifications.

8. State what you can concerning the function of respiration.

9. Explain what is meant by the reversion of organs, and show the biological significance of such changes. Examples.

10. Outline the life history of a myxomycete.

11. Give a concise account of the structure and function of the pistil, and show how this organ differs in Angiosperms and Gymnosperms.

II.

1. Give a full description of the specimen marked 1, and refer it to the family and genus.

2. Determine the family to which specimen 2 belongs.

3. Show the systematic position of specimen 3, and state fully what structures are represented.

4. Describe specimen 4 fully as to its leaves.

5. State fully what structures are represented in specimens 5 and 6.

ZOOLOGY.

THIRD YEAR ARTS AND SECOND YEAR APPLIED SCIENCE.

FRIDAY, APRIL 13TH:—2 TO 5 P.M.

Examiner, ... W. E. DEEKS, B.A., M.D.

1. Describe fully a *Leucon* type of sponge, and the different modes by which it is reproduced.

2. i. Compare the morphological characters, and give examples of:

(*a*) The *Hexactinia* and *Octactinia*.

(*b*) The *Hydromedusae* and *Scyphomedusae*.

ii. Describe fully the anatomy and mode of development of any one of the *Leptomedusan* colonies.

3. What morphological characters are common to the Annulata? Describe briefly any special modifications present in *Aphrodite*, *Nereis*, *Sepula*, *Hirudo*, *Lumbricus*.

4. Describe fully the structure of one of the *Cephalopoda*, and state the homologies of its external parts to (*a*) *Gastropoda*, (*b*) *Lamellibranchiata*.

5. Classify the *Echinodermata*. Briefly characterize and give examples of each class.

6. Compare circulation and respiration in *Pisces*, *Amphibia*, *Reptilia*, and *Aves*.

7. Describe the anatomy of the *Ascidians*, and discuss their position in the animal scale.

8. Describe the different kinds of protective structures present in the *Vertebrata*, and state any special advantages possessed by each in their adaptation to different modes of life.

9. Briefly characterize and give examples of *Brachiopoda*, *Coleoptera*, *Pteropoda*, *Trilobita*, *Araneida*, *Cirrhipedia*, *Stomapoda*, *Monotremata Rodentia*, *Insessores*, *Macroura*, *Lacertilia*, *Sporozoa*, *Cestoda*, *Foraminifera*.

10. Oral in the museum.

THIRD YEAR.

BOTANY.

MONDAY, APRIL 16TH :—9 TO 12 A.M.

Examiner,.....D. P. PENHALLOW, B.Sc.

1. Show how to find (1) the theoretical amplification of a microscope for any combination of objective and eye piece, (2) the actual magnifying power. Give an illustration.

2. Describe the structural characteristics of the nucleus, and show what means may be employed to differentiate it from the surrounding protoplasm.

3. Give a method for the determination of continuity of protoplasm, and show when such continuity may be looked for.

4. A given mixture contains starch, oil, and aleurone. Describe the physical properties of these bodies, and show how they may be distinguished micro-chemically.

5. Give the structural peculiarities of parenchyma tissue, and show how it behaves under the influence of (*a*) aqueous iodine, (*b*) iodine and sulphuric acid, (3) aniline blue.

6. In a given section a yellow stain is produced with aniline sulphate and a rose-red with phlor-glucin. What tissue may be thus stained?

7. Describe the structure of the bordering pit, and show where it occurs.

8. A mixture is given containing crystals of calcium carbonate, oxalate and sulphate. Show how each of these may be recognized.

9. Describe the structure of a sieve tube, and show where such cells occur.

10. Give a full account of the effect of caustic potash upon (*a*) the cell wall, (*b*) starch grains, (*c*) albuminoids.

11. Describe the process of making a balsam mount, taking the section from (*a*) alcohol, (*b*) glycerine.

12. Describe the characteristics of cork, and show what tests may be made for its recognition.

THIRD YEAR HONOURS IN NATURAL SCIENCE AND THIRD YEAR IN APPLIED SCIENCE.

(Departments of Chemistry and Mining.)

MINERALOGY.

FRIDAY, APRIL 20TH:—MORNING, 9 TO 12.

Examiners, ... { B. J. HARRINGTON, B.A., PH.D.
FRANK D. ADAMS, M.A. SC., PH.D.

1. Transform the following crystallographic symbols into the corresponding ones of Naumann, Dana and Miller:—

$\infty a : a : a$ $\quad 3a : b : 2c$

$\infty a : \infty b : c$ $\quad \frac{3}{2} a : b : 2c.$

$a : \infty b : \infty$ $\quad a : 2b : 3c.$

2. Explain the notation of crystal faces in the Triclinic system according to Weiss and Naumann.

3. Explain the relationship of the principal hemihedral forms to the holohedral forms of the hexagonal system.

4. What are pseudomorphs, and in what ways are they formed? What are paramorphs?

5. What are the principal surface irregularities to which crystals are liable?

6. Explain the distinction between uniaxial and the biaxial minerals.

7. Explain the connection between the refractive index and brilliancy of a mineral.

8. How may the natural Oxides of the metals be classified? Give the names and formulae of the principal members of each group.

9. Give the crystallographic characters of Cassiterite, Franklinite, Arsenopyrite, Stibnite and Argentite.

10. Give the chemical composition, colour, specific gravity and hardness of each of the following species:—

Molybdenite, Bornite, Millerite, Pyrargyrite, Rutile.

11. Describe carefully the minerals and models exhibited, and name two of the minerals.

THIRD YEAR HONOURS IN NATURAL SCIENCE AND THIRD YEAR IN APPLIED SCIENCE.

(Department of Mining.)

DETERMINATIVE MINERALOGY.

MONDAY, APRIL 23RD :—MORNING, 9 TO 11.

Examiners,..... ... . { B. J. HARRINGTON, B.A., PH.D
NEVIL NORTON EVANS, MA.SC..

1. Describe carefully the production of the oxidizing and of the reducing flame with the blowpipe : point out their distinguishing characteristics, and give examples of their use in determinative mineralogy.

2. Give the dry reactions of 5 of the following elements : Arsenic, copper, sulphur, phosphorus, boron, fluorine, titanium.

3. How is the operation of "roasting" performed, what is its object, and what are the principal chemical changes involved?

4. Make notes on the determination (*a*) of the lustre of minerals; (*b*) of the fusibility of minerals: (*c*) of the action of hydrochloric acid on minerals.

5. How is the hardness of minerals determined? Name in order the members of the "Scale of Hardness."

6. How would you distinguish between (*a*) pyrite and chalcopyrite; (*b*) magnetite and menaccanite; (*c*) hematite and limonite; (*d*) almandine and rutile; (*e*) quartz and topaz; (*f*) titanite and tourmaline?

7. Give the blowpipe characters of 5 of the following minerals: calamine, beryl, celestite, chrysocolla, dolomite, prehnite, zircon.

8. What is the action of hydrochloric acid upon each of the following minerals : cuprite, siderite, gypsum, nephelite, apatite, zircon.

B.A. ORDINARY EXAMINATION AND THIRD YEAR APPLIED SCIENCE.

THURSDAY, APRIL 12TH :—MORNING, 9 TO 12 AND 2 P.M.

Examiners,..... { B. J. HARRINGTON, B.A., PH.D.
FRANK D. ADAMS, M.AP.SC., PH.D.

1. What do you understand by the terms—Essential, Accessory, Primary and Secondary, as applied to the constituents of rocks.

2. A portion of a certain magma solidifies in the deeper parts of the

earth's crust, crystallizing as a mixture of quartz, feldspar and mica. What is the name of the rock so produced? Another portion of the same magma reaches the surface and solidifies there. What rock does it form? Still another portion of the magma having reached the surface is blown into a fine dust by the explosive action of escaping gases, and falling into the adjacent sea forms a stratified deposit. What would this be called?

3. Give a very brief and general outline of the character and action of the destructive forces of nature.

4. Distribution and sub division of the Lower Silurian System in Canada. Give the names of a few characteristic fossils.

5. Triassic System—Origin of name. Position in Geological column. Petrographical character and distribution in Eastern North America. How is it represented in Great Britain and in Germany?

6. Describe the conditions under which coal was accumulated in Nova Scotia during the carboniferous. Describe three of the genera of plants which are especially abundant in the coal measures.

7. Describe briefly the Post Pliocene deposits in the vicinity of Montreal. Enumerate a few of the principal fossils which they contain, and state the climatal conditions indicated.

8. Give a description of the geology of any one of the localities visited by the class last autumn.

9. Either of the following :—

(*a*) State the zoological or botanical, and geological relations of *Nummulites, Ollenelus, Orthis, Megalomus, Orthoceras, Ammonites, Halysites, Saxicava, Plesiosaurus, Psilophyton.*

(*b*) State the age of the Protaxes of the North American Continent and describe their position. Explain how they can be recognized and how the continent was built up about them.

2 o'clock P.M.

10. Name the fossils exhibited, and state the geological formations to which they belong.

11. Name and describe the rock specimens.

B.A. HONOURS IN GEOLOGY AND NATURAL SCIENCE.

B.A. HONOURS IN NATURAL SCIENCE AND B.A. Sc.

(Chemistry and Mining Courses).

(*FIRST PAPER*) MINERALOGY.

THURSDAY, DECEMBER 14TH :—MORNING, 9 TO 12.

Examiners, ... { B. J. HARRINGTON, B.A., PH.D.
F. D. ADAMS, M.A.Sc., PH.D.

1. Explain the following types of twinning :—(*a*) Carlsbad, (*b*) Baveno, (*c*) Manebach, (*d*) Pericliu.

2. What are ordinary combinations of planes in crystals of the following species :—Topaz, Zircon, Pyroxene, Titanite, Garnet?

3. Discuss the chemical constitution of Tourmaline, Andalusite, Titanite, Spinel and Garnet.

4. Give the general characters of the Micas, and explain their division into two orders. What is Tschermak's view as to their chemical constitution?

5. What is the nature of the cleavage in each of the following species : —Albite, Topaz, Hornblende, Gypsum, Sphalerite, Galena, Stibnite?

6. Name and classify the minerals of the Pyroxene group. Briefly describe any two members of the group.

7. What are the general characters of the Zeolites? Name the principal members of the group, and describe two of them.

8. Give the blow-pipe characters of Molybdenite, Millerite, Malachite, Rutile, Cassiterite.

9. Give the chemical formula and crystalline form of Pyrargyrite, Marcasite, Cerussite, Magnesite, Sodalite.

10. Explain carefully the notation of the faces in the Monoclinic System.

(*SECOND PAPER*) PRACTICAL GEOLOGY.

SATURDAY, MARCH 31ST :—MORNING, 9 TO 1.

Examiners, ... { B. J. HARRINGTON, B.A., PH.D.
FRANK D. ADAMS, M. AP. SC., PH.D.

1. What do you understand by an unconformability between two geological formations? How is it produced, and what does it indicate in regard to the ages of the two formations?

2. Explain and illustrate by means of diagrams the possible effect of faulting in increasing or decreasing the amount of coal which would underlie an area if the beds were horizontal and continuous.

3. Give Von Cotta's classification of ore deposits in the modified form adopted in the lectures.

4. Describe briefly the Leadville ore deposits. Explain their geological relations, and state to what class of deposits they should be referred.

5. What do you understand by Alluvial Deposits? Explain their origin and give an example.

6. Define the principal terms used in describing fissure veins. Describe the principal structures which they present. Illustrate from definitions and descriptions by diagrams.

7. A line AA is drawn across a portion of the Geological Map (**No. 1**) submitted. Construct a horizontal section along this line.

8. Describe and explain briefly the Geological Section BB (**No. 2**).

9. Describe the Geological Section CC (**No. 3**). Are there any reasons for supposing that it does not represent an actual occurrence? If so, what are they?

10. Coal claims have been taken up on the map marked (**No. 4**) on the areas marked A, B and C. What is your opinion as to the probability of finding coal on these areas? Give your reasons.

(*THIRD PAPER*) PETROGRAPHY.

MONDAY, APRIL 9TH :—MORNING, 9 TO 1.

Examiners, ... { B. J. HARRINGTON, B.A., PH.D.
FRANK D. ADAMS, M.AP. SC., PH.D.

1. From a crystal of quartz two sections are cut—the first parallel to oP, the second parallel to ∞ P. Describe and explain the optical properties of each when examined under the microscope.—(1.) Making use of the lower Nicol alone.—(2.) Between crossed Nicols in parallel polarized light.—(3.) Between crossed Nicols in convergent polarized light.

2. What is Dichroism? Is it ever observed in minerals of the Monometric system or in those of the Monoclinic system? Give your reasons.

3. Explain the terms Porphyritic, Amygdaloidal, Vesicular, Phenocryst, Granophyre.

4. Give in tabular form the classification of the Plutonic Rocks according to Rosenbusch.

5. Describe briefly the effects of pressure on the several essential constituents of a Biotite Granite, as observed when thin sections of the crushed rock are examined under the microscope.

6. Describe very briefly the following: Pitchstone, Theralite, Gabbro, Arkose.

7. Write a somewhat detailed description of *Pegmatite* treating of its mineralogical composition, structure and mode of occurrence.

8. Explain the terms Pyroclastic, Epiclastic, Cataclastic, as applied to rocks. Name one rock showing each of the structures.

9. Name the twelve hand specimens. What structures are exhibited by Nos. 10, 11, and 12?

10. Examine the five thin sections under the microscope. State in each case what minerals are present, as well as the name and structure of the rock.

(*FOURTH PAPER*) ADVANCED GEOLOGY.

WEDNESDAY, APRIL 4TH:—AFTERNOON, 2 TO 5.

Examiners,..... .... { B. J. HARRINGTON, B.A., PH.D. / FRANK D. ADAMS, M.AP.SC., PH.D.

1. Explain the grounds on which the various geological systems were constituted.

2. Explain how estimates of the relative duration of the several geological systems may be arrived at from a study of the strata composing them.

3. Describe the evidence of Continental depression which is afforded by the Coast of New Jersey.

4. What is the Cuboides zone? What is its precise age? Point out its bearing on the question of Homotaxy.

5. Enumerate the principal orders of animals and plants by which great limestone deposits have been accumulated. Give an example of a limestone accumulated by each, stating its age.

6. Describe briefly the mineralogical character, geological relations and probable origin of the nickel and copper deposits of the Sudbury District.

7. Give a short account of Sandberger's investigations into the origin of mineral veins.

8. Write a short description of Artesian Wells, pointing out the geological conditions requisite for obtaining them in any district.

(*FIFTH PAPER*) CANADIAN GEOLOGY.

MONDAY, APRIL 23RD:—MORNING, 9 TO 12.

Examiners, ... { B. J. HARRINGTON, B.A., PH.D.
FRANK D. ADAMS, M. AP. SC., PH.D.

1. Draw a line of section from the Laurentian axis across Ontario to the west end of Lake Erie.

2. State what you know of the character and mode of occurrence of the deposits of mineral fuel in Western Canada.

3. State what you know of the Nova Scotia gold-bearing series.

4. Describe the Upper Silurian system as developed in the peninsula of Ontario. Mention some of the more characteristic fossils of any one of its Formations.

5. On what Formations are the following places in Canada built:—Halifax, Ottawa, Toronto, Kingston, Newcastle, N.B., Charlottetown, P.E.I., Montreal.

6. How is the Eastern Border Basin bounded on the west? Show how geologically it is more nearly related to Western Europe than to the remaining portion of the Dominion of Canada.

7. Describe the nature and mode of occurrence of the principal minerals of economic value which are found in the Laurentian system.

8. State what you know of the development of the Devonian in the Canadian North-West. How is it related to the "Tar Sands" of that region?

9. Where are the principal deposits of Asbestos in Canada? How does the mineral occur, and what is the age of the rocks in which it is found?

(*SIXTH PAPER*) PALAEONTOLOGY.

FRIDAY, APRIL 20TH:—MORNING, 9 TO 1.

Examiners,..... { B. J. HARRINGTON, B.A., PH.D.
FRANK D. ADAMS, M.AP.SC., PH.D.

1. Give a brief description of the various ways in which organic remains are preserved in sedimentary strata.

2. Describe the following genera:—Saccamina, Miliola, Globigerina and Polystomella. What is their position in the zoological classification? State what you know concerning their age.

3. Describe briefly the character of the fossil Radiolaria, mentioning any deposit in which they are especially abundant. How far back are they known to extend in geological time?

4. Describe a typical Graptolite, and show how it is related to the Sertulariadæ. Illustrate your description by sketches.

5. Describe Petraia, Cystiphyllum and Syringopora, and give their geological ranges.

6. Describe the parts of a typical crinoid. Illustrate your description by sketches, and state what you know of the distribution of the crinoids in geological time.

7. Give a description of the anatomy of a Brachiopod, illustrating your description by sketches. Give the names and distinguishing characteristics of any three genera of the Inarticulata, stating in each case their geogical range.

8. State the zoological relations and the geological age of the following:—

Tetradium, Comatula, Agelacrinus, Melonites, Halysites, Orthis, Cidaris, Eocystites, Rastrites, Calceola.

9. Refer the specimens exhibited to their geological formations and to their places in the zoological classification.

FACULTY OF APPLIED SCIENCE.

SESSIONAL EXAMINATIONS, 1894.

FACULTY OF APPLIED SCIENCE.

FIRST YEAR.

MATHEMATICS (I).

SATURDAY, DECEMBER 16TH :—MORNING, 9 TO 12.30.

Examiner,.....R. S. LEA, MA.E.

1. Divide a straight line into two parts, so that the rectangle contained by the whole line and one of the parts shall be equal to the square on the other part.

Find what fraction of the whole line the larger segment is.

Show that the squares on the whole line and one of the parts are together equal to three times the square on the other part.

2. Divide a straight line into two parts, so that the difference of the squares on the parts may be equal to a given area.

3. Given the base of a triangle and the sum of the squares on the sides, find the locus of the vertex.

4. If through any point in the common chord of two circles which intersect one another, there be drawn any two other chords, one in each circle, their four extremities shall all lie in the circumference of a circle.

5. About a given circle, circumscribe a triangle equiangular to a given triangle.

6. Show that the area of any triangle is equal to half the sum of its sides multiplied by the radius of the inscribed circle.

7. If the vertical angle of a triangle be bisected by a straight line which also cuts the base, the segments of the base shall have to one another the same ratio as the other sides of the triangle.

Also, the rectangle contained by those two sides shall be equal to the rectangle contained by the segments of the base together with the square on the bisector.

8. If two straight lines are parallel, and one of them is perpendicular to a plane, the other will also be perpendicular to that plane, and conversely.

9. In any trihedral angle, the sum of any two of its faces is greater than the third.

10. Find the number of cubic feet in a retaining wall which is 120 feet long by 6 feet wide on the bottom, and 100 feet long by 4 feet wide on the top, and 10 feet high.

11. Find the surface of a sphere, and show that it is two-thirds that of the circumscribed cylinder.

12. In a parabola, prove that :—

(*a*) The tangent at any point bisects the angle between the focal distance of the point and the perpendicular from the point on the directrix.

(*b*) The subtangent is equal to twice the corresponding abscissa.

(*c*) The subnormal is equal to one-half the latus rectum.

13. Prove that the sum of the focal distances of any point on an ellipse is constant.

14. Find the locus of the centre of a circle which touches two given circles, each of which is without the other.

FIRST YEAR.

MATHEMATICS (II).

TUESDAY, APRIL 3RD :—MORNING, 9 TO 12.30.

Examiner,.....R. S. LEA, M.A.

1. Show that

$$\frac{x^2-bc}{(a-b)\,(a-c)} + \frac{x^2-ca}{(b-c)\,(b-a)} + \frac{x^2-ab}{(c-a)(c-b)} = -1$$

2. Find the factors of :

(1) $x^3 + 343$,

(2) $4x^4 - 37\,x^2\,y^2 + 9\,y^4$,

(3) $9\,x^4 + 11\,x^2\,y^2 + 4\,y^4$,

(4) $a^3 + 8c^3 + 1 - 6ac$,

(5) $x^3 - 6x^2 + 11x - 6$.

3. Solve the equations

(1) $\left.\begin{matrix} x^3 + y^3 = 1008 \\ x + y = 12 \end{matrix}\right\}$,

(2) $\dfrac{x+2}{x} + \dfrac{x-7}{x-5} - \dfrac{x+3}{x+1} = \dfrac{x-6}{x-4}$,

(3) $\sqrt{x-4} - \sqrt{x+11} + 3 = 0$.

4. Show that $\dfrac{7+3\sqrt{5}}{7-3\sqrt{5}} + \dfrac{7-3\sqrt{5}}{7+3\sqrt{5}} = 47$.

5. Show that a quadratic equation has only two roots. Form the equation whose roots are $\frac{2}{3}a$ and $-\frac{4}{5}a$.

6. In the expansion of $(x-y)^{28}$ write the coefficient of the 18^{th} term; also write the largest term when $x = 9$ and $y = 4$.

7. The angles of a triangle are in arithmetical progression and the circular measure of their common difference is $\frac{\pi}{9}$; express the angles in degrees.

8. Show that

(1) $\tan^2\theta - \sin^2\theta = \sin^4\theta \sec^2\theta$,

(2) $\sec^4\theta + \tan^4\theta = 1 + 2\sec^2\theta \tan^2\theta$.

(3) $(\sec\theta - \tan\theta)^2 = \dfrac{1-\sin\theta}{1+\sin\theta}$,

(4) $\dfrac{1-2\sin^2\theta}{1+\sin 2\theta} = \dfrac{1-\tan\theta}{1+\tan\theta}$,

(5) $\dfrac{\tan\theta}{\tan 2\theta - \tan\theta} = \cos 2\theta$.

9. Find the values of θ (less than 180°) from the equations

(1) $\tan^2\theta + 4\sin^2\theta = 3$,

(2) $\tan 2\phi = 3\tan\phi$.

10. In any plane triangle show that

(1) $\tan\frac{1}{2}(A-B) = \dfrac{a-b}{a+b}\cot\frac{1}{2}C$,

(2) $a^2 = b^2 + c^2 - 2bc\cos A$,

(3) $\cos\dfrac{A}{2} = \sqrt{\dfrac{s(s-a)}{bc}}$.

(4) $\sin 2A + \sin 2B - \sin 2C = 4\sin C\cos A\cos B$.

FIRST YEAR.

MATHEMATICS (III).

MONDAY, APRIL 9TH:—MORNING, 9 TO 12.30.

Examiner.....R. S. LEA, M.A.F.

1. In any right-angled spherical triangle, show (without assuming Napier's Rules) that

(1) $\tan A = \dfrac{\tan a}{\sin b}$,

(2) $\cos c = \text{cte } A \cot B$,

(3) $\cos a = \dfrac{\cos A}{\sin B}$,

(4) $\tan A = \sin a \cot b \sec c$.

2. One side of a spherical regular polygon of n sides is a, and A is one of the angles ; show that

$$\sin \tfrac{1}{2} A = \sec \tfrac{1}{2} a \cos \frac{180^\circ}{n}$$

Hence find the dihedral angle between the faces of a regular octahedron.

3. In any spherical triangle show that

(1) $$\frac{\sin A}{\sin a} = \frac{\sin B}{\sin b} = \frac{\sin C}{\sin c}$$

(2) $$\cos A = \frac{\cos a - \cos b \cos c}{\sin b \sin c}$$

4. Solve the plane triangles in which

(1) $a = 984.2$, $A = 22^\circ\ 59'$, $C = 90^\circ$

(2) $a = 583.1$, $b = 503.7$ $A = 78^\circ\ 13'$

5. In the spherical triangles in which

(1) $a = 21^\circ\ 54'$, $B = 36^\circ\ 45'$, $C = 90^\circ$

(2) $A = 130^\circ\ 5'\ 22.4''$, $B = 32^\circ\ 26'\ 6.4''$, $c = 51^\circ\ 6'\ 11.6''$

Show that

(1) $b = 15^\circ\ 34'$, $A = 56^\circ\ 17'$, $c = 26^\circ\ 39'$

(2) $a = 84^\circ\ 14'\ 29''$, $b = 44^\circ\ 13'\ 45''$, $C = 36^\circ\ 45'\ 28''$.

FIRST YEAR.

MATHEMATICS (IV.).

TUESDAY, APRIL 17th :—MORNING, 9 to 12.

Examiner,..... .....G. H. CHANDLER, M.A.

1. Draw three diagrams each containing three points A, B, C, and in which the line BC represents change of velocity ; in the first when there is no change of direction, in the second when there is no change of speed, in the third when there is change both in direction and in speed.

2. A particle of mass 3 lbs. and speed 4 feet per second toward the east is acted on for two seconds by a force of two poundals directed toward the north ; what is the resultant velocity ?

3. (*a*) Enunciate the three laws of motion, (*b*) also the law of Gravitation. (*c*) What is the weight in poundals of 10 lbs. of matter ?

4. How far and for how long must a body fall in order to acquire a speed of 1 foot per second?

5. Lines parallel to the sides of a square divide the figure into four equal parts. The inscribed circle of one of these parts is cut out. Find the centre of gravity of the portion of the given square which remains.

6. Find in magnitude and position the resultant of two parallel forces of 5 and 8 units respectively, (1) when they are in the same directions, (2) in opposite directions.

7. State and prove the rule for finding the true mass of a body by means of a balance with unequal arms.

8. What force acting up a plane of inclination 30° will support a body of mass 10 lbs., (1) when the plane is smooth, (2) when the coefficient of friction is $\frac{1}{4}$?

9. (*a*) Explain two methods of finding the specific gravity of a liquid. (*b*) What is the specific gravity of a solid which floats in water with $\frac{2}{7}$ of its volume out of the water?

10. Prove that the force required to make a particle of mass m pounds move in a circle of radius r feet with uniform speed v feet per second, is $\frac{mv^2}{r}$ poundals.

SECOND YEAR.

MATHEMATICS (I).

SATURDAY, DECEMBER 16TH:—MORNING, 9 TO 12.30.

Examiner,..... G. H. CHANDLER, M.A.

1. Draw the curves $y = x\,(x^2 - 1)$, $y = \cos^2 \frac{1}{2}\,x$.

2. Find the two points of intersection of the curves $x^3 + y^3 = 3\,axy$ and $y = x^2$.

3. The sides of a triangle are $2x + y = 10$, $3x + 5y = 8$, $x - 3y = -16$, find the co-ordinates of the orthocentre and the centroid.

4. Find the tangent to the circle $x^2 + y^2 - 4x - 5y = 0$ at the origin.

5. Find the equation of a circle which intersects that of question 4 in the $2x + 3y - 1 = 0$.

6. When the axes of the curve $(x^2 + y^2)^2 = a^2 (x^2 - y^2)$ are turned through $-45°$ and the equation then changed to polar co-ordinates, it becomes $\rho^2 = a^2 \sin 2\theta$. Prove this, and draw the curve.

7. Show that the equation of the normal at any point of an ellipse is

$$\frac{a^2 x}{x^1} - \frac{b^2 y}{y^1} = a^2 - b^2,$$

and hence that the normal divides the line joining the foci into parts which have the ratio of $a + ex$ to $a - ex$. What property of the ellipse follows?

8. For what points on the parabola $y^2 = 4px$ is the normal equal to the latus rectum?

9. The perpendicular from a focus of an ellipse on a tangent is produced until it is doubled; find the locus of the point thus found.

10. Prove that the perpendicular from the focus of a hyperbola on either asymptote is equal to half the conjugate axis.

SECOND YEAR.

MATHEMATICS (II).

MONDAY, APRIL 9TH:—MORNING, 9 TO 12.30.

Examiner,..... G. H. CHANDLER, M.A.

1. Define infinitesimal, differential, differential co-efficient. In what sense and with what limitation may it be said that $1 - \cos\theta = \frac{1}{2}\theta^2$?

2. Find the formulæ for differentiating u/v, $\tan\theta$, $\tan^{-1}(x/a)$.

3. Show that:

$$d\,(x / \sqrt{a^2 + x^2}) = a^2\,dx / (a^2 + x^2)^{\frac{3}{2}},$$

$$d \log\tan\left(\frac{\pi}{4} + \frac{\theta}{2}\right) = \sec\theta\,d\theta,$$

$$d \log(\sec\theta + \tan\theta) = \sec\theta\,d\theta.$$

4. Write down the general differential expression for the length of the normal between the point of contact and the axis of x, and show that it

$= 2a \sin\frac{1}{2}\theta$ for the cycloid $x = a(\theta - \sin\theta)$, $y = a(1 - \cos\theta)$.

5. Prove that the radius of curvature at any point (x, y) of a curve is

$$\frac{ds^3}{dx\, d^2y - dy\, d^2x},$$

and hence that the radius of curvature of the cycloid is twice the normal.

6. Show that the greatest value of $\sin^2\theta \cos\theta$ is $\frac{2}{9}\sqrt{3}$

7. Show that:

$$(1)\ \int \tan\theta\, d\theta = \log \sec\theta,$$

$$(2)\ \int \frac{d\theta}{1+\cos\theta} = \tan\tfrac{1}{2}\theta,$$

and by parts, that

$$(3)\ \int x \tan^2 x\, dx = x\tan x + \log\cos x - \tfrac{1}{2}x^2.$$

8. Also that

$$(1)\ \int_2^\infty \frac{dx}{x^3} = .125,$$

$$(2)\ \int_0^1 \frac{x\, dx}{1-x^2} = \cdot 347.$$

$$(3)\ \int_0^{\frac{1}{2}} \frac{d\theta}{\cos^2\theta} = \cdot 521,$$

$$(4)\ \int_1^2 e^x\, dx = 4.671.$$

9. Find the area between the curve $y = x(1 - x^2)$ and the axis of x, and the volume of the solid formed by revolving this area about the axis of x.

10. Prove that the moment of inertia of a triangular lamina about the base is

$$\text{mass} \times \tfrac{1}{6}(\text{altitude})^2,$$

and that that of a spherical shell about a diameter is

$$\text{mass} \times \tfrac{2}{3}(\text{radius})^2.$$

SECOND YEAR.

MATHEMATICS (III).

TUESDAY, APRIL 17TH:—MORNING, 9 TO 12.

Examiner,.....R. S. LEA, MA.E.

1. A body falling freely passes over 161 feet in a certain second; how long has it been falling?

2. A body is thrown in a direction making an angle of 30° with the horizon, and passes through a point whose horizontal distance from the point of projection is $400\sqrt{3}$ feet, and vertical height above it 76 feet. Find the velocity of projection.

3. A string passing over a smooth pulley supports two scale pans at its ends, the mass of each scale pan being 1 lb. If masses of 6 lbs. and 10 lbs. respectively be placed in the pans, find:—

(1) the acceleration of the system,

(2) the tension of the string,

(3) the pressures between the masses and the pans.

4. Define Simple Harmonic Motion, and show how to find the velocity at any point.

A point moving with simple harmonic motion has a velocity of 4 feet per second when passing through the centre of its path, and its period is π seconds; what is the velocity when it has described one foot from the position in which its velocity is zero?

5. How many oscillations will a simple pendulum 4 feet long make in one day?

6. Explain what is meant by the Hodograph of a point's motion.

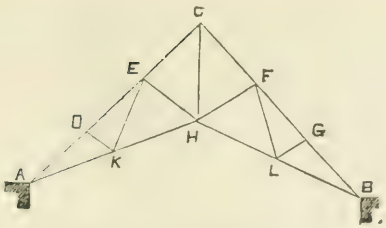
Find by means of the hodograph the force acting on a body moving uniformly in a circle.

7. State the conditions of equilibrium (*a*) of a particle, (*b*) of a rigid body.

Describe a graphical method by which you would find the resultant in magnitude, direction, and position, of a number of forces acting in one plane on a body, and not all passing through the same point.

8. Find the centre of gravity of a T iron of which

the depth of web	=	8 in.
" thickness " "		$\frac{1}{2}$ "
" width of flange	=	6 "
" thickness of flange	=	$\frac{3}{4}$ "



9. In the accompanying fig., of a roof truss, AC = CB = 30 ft., and they are both at 45° to the horizontal. D, E, F and G are points of trisection. CH = 12 ft.; AH and BH are bisected in K and L.

Loads of 3,000 lbs. are concentrated at D, E, C, F and G. Draw the stress diagram, and give the nature and amount of the stresses in each member.

If the loads at F and G are each increased by 1500 lbs. find the stress in E. K.

THIRD AND FOURTH YEARS.

MATHEMATICS (I).

SATURDAY, DECEMBER. 16TH :—MORNING, 9 TO 12.30.

Examiner,..... G. H. CHANDLER, M.A.

1. State and prove the formula for finding the area of a triangle, and find the area when the sides are $2x + y = 10$, $3x + 5y = 8$, $x - 3y = -16$.

2. Show that the area of the circle $x^2 + y^2 - 4x - 6y = 3$ is 16π, and that the area of the ellipse $2x^2 + y^2 - 4x - 6y = 3$ is $7\pi\sqrt{2}$.

3. Prove that the equation of the normal at any point of an ellipse is

$$\frac{a^2 x}{x_1} - \frac{b^2 y}{y_1} = a^2 - b^2.$$

4. Find the centre of the conic $x^2 + 2xy + 2y^2 - x - y - 2 = 0$. Also reduce it to its principal diameters as axes, and draw the curve.

5. Show that

(1) $$d\sqrt{\frac{a+x}{a-x}} = \frac{a\,dx}{(a-x)\sqrt{a^2 - x^2}},$$

(2) $$d\left(\log\sqrt{\frac{x-a}{x+a}} + \tan^{-1}\frac{x}{a}\right) = \frac{2a x^2\,dx}{x^4 - a^4}.$$

6. Find an expression for the radius of curvature at any point of a curve, and find that of the curve $y = x^3$ at the point (1, 1).

7. Show that

(1) $\int \frac{(1+x)\,dx}{x\,(1+x^2)} = \tan^{-1} x + \log \frac{x}{\sqrt{1+x^2}}$,

(2) $\int x^2\, e^x\, dx = (x^2 - 2x + 2)\, e^x$ (by parts),

also (putting $x - a = z^2$) that

(3) $\int \frac{dx}{\sqrt{(x-a)\,(b-x)}} = 2 \sin^{-1} \sqrt{\frac{x-a}{b-a}}$.

8. Show (putting $x = a \sin^2\theta$) that the area between the witch $y^2\,(a-x) = a^2\, x$ and its asymptote is $\pi\, a^2$.

9. Show that the volume of a prolate spheroid is $\frac{4}{3}\,\pi\, ab^2$.

10. Find the moment of inertia (1) of a triangle about one side, (2) of a circle about a tangent, (3) of a spherical shell about a diameter.

11. State Maclaurin's Theorem, and by it show that

$$\tan x = x + \frac{x^3}{3} + \ldots$$

THIRD YEAR.

MATHEMATICS (II.).

TUESDAY, APRIL 17TH :—MORNING, 9 TO 12.

Examiner.....G. H. CHANDLER, M.A.

Answer any ten.

1. Prove that the greatest height of a projectile in feet is nearly equal to four times the square of the time of flight in seconds.

2. (*a*) If a pendulum of length l make, in a given time, n vibrations at a place where the acceleration of gravity is g, show that

$$\frac{dn}{n} = \frac{dg}{2g} - \frac{dl}{2l}.$$

(*b*) A clock which should beat seconds gains 30m. per week; shew that the pendulum should be lengthened by ·006 of its length in order to keep correct time.

3. The force necessary to haul a train at uniform speed on a 1 per cent. grade is 3·5 times that on the level. Show that the coefficient of friction is ·004.

4. Explain the meaning of (*a*) dyne, (*b*) erg, (*c*) horse power, (*d*) joule. (*e*) watt. (*f*) Show that one horse power = 746 watts.

5. (*a*) Explain the construction and use of the Prony Brake. (*b*) If the engine run at 100 revolutions per minute, and the friction support 2,000 lbs. at the end of a lever $10\frac{1}{2}$ feet long, find the horse power developed.

6. Find the potential at the centre of a thin circular ring of radii R and r.

7. A sphere of mass 40 lbs. and radius 6 in. turns on an axle in such a way that the moment of the friction about the axis of revolution is 20 poundal-feet. After making 500 revolutions it comes to rest. Show that the initial angular velocity was $100\sqrt{\pi}$.

8. A particle of mass m moves in a circle of radius r with uniform speed v. Shew that the force acting is mv^2/r.

9. A body is rotating with angular velocity ω_1 about an axis which is precessing with constant angular velocity ω_2. Show that the couple causing the precession is $\omega_1\ \omega_2\ I$, where I is the moment of inertia about the axis of rotation.

10. (*a*) What is meant by the centre of pressure of a plane area? (*b*) How is it found? (*c*) What is the connection between the centre of pressure and the centre of oscillation of a pendulum?

11. (*a*) How is Boyle's Law expressed by a curve? (*b*) What in the diagram expresses the work done in compressing the gas? (*c*) Calculate the work required to compress a cubic foot of air to half its volume, given $\log_e 2 = \cdot 693$.

12. If a ball moving with velocity u strike an equal one at rest, show that the velocities after impact will be

$$\tfrac{1}{2}(1 + e)\ u, \text{ and } \tfrac{1}{2}(1 - e)\ u.$$

where e is the coefficient of restitution.

THIRD YEAR EXAMINATION (CIVIL AND MECHANICAL).

TESTING LABORATORY.

MARCH 20TH AND 27TH, 1894.

Examiners,..... { HENRY T. BOVEY, M.A., LL.D.
C. B. SMITH, B.A.Sc.

(*a*) TESTING OF MATERIALS.

1. Describe a test of a beam loaded transversely, in centre, in Wicksteed testing machine, giving an idea of what notes and precautions you would consider necessary; also show by sketches the manner of applying and measuring loads in this machine, showing clearly every action necessary to a complete test.

2. Describe in a similar way a tension test of a piece of timber in the same machine, stating about how much Douglas fir, pine and oak will stand tested in tension if the material is sound and clear.

3. Describe a compression test of timber in the Emery testing machine, stating what notes, etc., you would take before, during and after test, and also show, by sketches, the methods of applying loads and of weighing them in this machine. What is the average value of compressive strength per square inch of oak, Douglas fir, pine and spruce; give limits of variations.

4. About how much will Douglas fir and white pine stand, sheared along the grain?

5. Describe a test of wrought iron, mild steel or cast steel in tension; give average value of fair quality of all these materials, (*a*) per square in. at elastic limit, (*b*) breaking load per square inch, (*c*) reduction of area per cent., (*d*) elongation per cent. in 8″.

6. What are the effects on testing if load is released (*a*) below elastic limit, (*b*) above elastic limit?

7. Draw a typical stress-strain diagram in tension and comprehension of C.I., W.I., and steel.

8. Draw up specification (with definite figures) for metal to be used in tension members of a railway bridge.

(*b*) MATERIALS.

1. Give general characteristics and special uses of magnetic iron ore.

2. Describe the preparation of iron ores, beginning at the mine and ending at the pig iron ready for market.

3. State how carbon affects the various kinds of iron.

State the effect of silicon on cast iron and the effect of sulphur and phosphorus on wrought iron and steel.

4. Sketch a regenerative and a reverberatory furnace; show method of use of each.

5. What is puddling? Describe various kinds or methods in use. Give a full description of Bessemer process.

6. What is the striking characteristic of steel? How is it given to it?

THIRD YEAR (CIVIL).

CEMENT LABORATORY.

MARCH 24TH, 1894:—9 TO 12 A.M.

Examiners, ... } HENRY T. BOVEY, M.A., LL.D.
..... } CECIL B. SMITH, B.A.Sc.

1. Make a report on the cement given you eight days ago to test; stating its qualities, whether it is or is not fit for use at all, and if fit, then for what special purposes would you recommend it?

Draw up a general specification for Portland cement.

2. Explain the chemical changes occurring in the transitions from limestone rock, burnt, and then used as an ingredient of mortar.

3. When can lime be used? Where feasible? Why is it used in preference to cement?

4. Classify the hydraulic limes, giving general characteristics of each class.

5. Classify the hydraulic cements; give properties and chemical compositions of Roman and any typical Rosendale cement.

6. Give chemical composition of a good Portland cement, stating also the limiting values of sulphuric acid and magnesia, stating reasons.

7. Explain the chemical phenomena that take place in the burning and setting of Portland cements.

8. Describe method of practically preparing mortar and concrete; showing how common points of neglect on part of contractors or workmen may affect the result.

9. State what tests you would subject a cement to, and your reasons for so doing. How would you interpret the results you obtained?

10. How much do you need for a complete test? How much sand? What kind of sand is usually used in testing?

What kind of sand is best for mortar in practice?

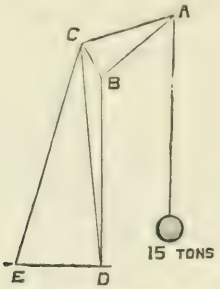
THIRD YEAR AND B.A.Sc. EXAMINATIONS.

THEORY OF STRUCTURES (*Paper I*).

SATURDAY, 31ST MARCH:—MORNING, 9.

Examiners, ... { HENRY T. BOVEY, M.INST. C.E. / H. BAMFORD, M.Sc.

1.



In the crane shewn by the Figure AB = AC = 10 feet; BC = 4 feet and is inclined at 60° to the horizontal; BD = 20 feet and is vertical: CE is inclined at 15° to the vertical; the weight W is 15 tons; draw the stress diagram, and show how it will be modified by substituting a member from B to E instead of that from C to D. The chain hangs in four falls, and passes from A to C and then from C to E.

2.

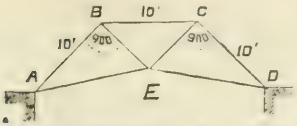
The Figure is the skeleton diagram of a truss for a highway bridge. AB = BC = CD = DE = 8 ft.; BF = DH = 6 feet; CG = 8 ft; the load for which the truss is designed is 100 lbs. per lineal foot: draw the stress diagram.

Give the numerical value of the stress in CF.

3. Draw the stress diagram for the truss in the preceding question, when instead of a uniformly distributed load, single weights of 700, 800 and 900 lbs. are concentrated at B, C and D respectively.

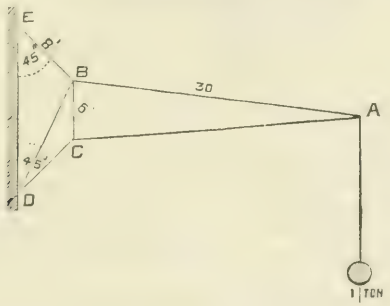
Give the numerical values of the stresses in CF and CH.

4.



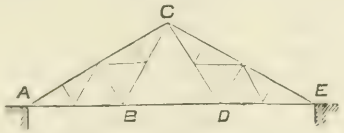
The Figure represents a roof truss; AB = BC = CD = 10 feet; AB and CD are each inclined at 45° to the vertical and BC is horizontal; BE is at right angles to BA and CE to CD; find the stresses in all the members due to a concentrated load of 400 lbs. at B and of 800 lbs. at C. Also determine the effect of a wind pressure of 100 lbs. per lineal foot, normal to AE, the end A being fixed and the end D on rollers.

5.



Find the stresses in the several members of the cantilever shown by the Figure due to a weight of 1 ton at A; AB = AC = 30′ ft.; BC = 6′ ft.; CD = BE = 8′ ft. and are each inclined at 45° to the vertical.

6.



In the accompanying sketch of a roof principal,

AB = BC = BD = CD = DE; E is fixed to the abutment and A rests upon rollers. Assuming the two rafters, AC and CE, to be acted upon by a uniformly distributed vertical load together with a uniform normal wind-pressure over CE, show how to determine graphically the force in the bar BD and complete the diagram of internal forces.

7. A ten-panel Howe truss of 80 feet span and 10 feet deep carries a uniformly distributed load of 40 tons, and a single load of 5 tons concentrated at the third panel point. Find the stresses in all the members of the truss.

8. Shew that the B.M. at any point of a loaded beam is the intercept on the vertical through that point cut off by the closing line and by the opposite bounding line of the funicular polygon.

9. Three wheels A, B and C travel over a girder of 20 feet span at the same distance apart. The centres of A and B are 4 feet apart, and of B and C, 5 feet apart. There is a load of 3 tons on A, 5 on B, and 5 on C. Determine, *graphically*, the maximum B.M. at 5 and 10 feet from a support. Also find the absolute maximum B.M. to which the girder is subjected.

THIRD AND FOURTH YEARS EXAMINATION.

THEORY OF STRUCTURES (*Paper II.*)

TUESDAY, APRIL 3RD:—9 A.M.

Examiners, ... { H. T. BOVEY, M.A., M.INST.C.E. / H. BAMFORD, M.SC.

1. Determine the maximum load which can be raised by the hook of a crane so that the stress in a horizontal section (rectangular) may not exceed 6 tons per square inch, the breadth of the section being 3.5 inches, the thickness 1.3 inches and the horizontal distance between the line of action of the load and the centre of the section 2.5 inches.

2. In a four-wheel coupled locomotive the diameter of the driving wheels is 7′ 6″, the length of the coupling rods 10 ft. and the crank radius 12″. Determine the depth of the coupling rods in order that the stress may not exceed 15,000 lbs. per square inch at 60 miles per hour.

3. A hammer weighing W_1 lbs. moving with a velocity of V ft. per sec. strikes a nail weighing W_2 lbs., and drives it x ft. into a piece of timber weighing W_3 lbs. against a mean resistance of R lbs. Find the time of penetration and the distance through which the timber moves.

An inelastic weight of 1 ton falls 1 foot, and in four successive instantaneous blows drives an inelastic pile weighing $\frac{1}{4}$ ton, 1 ft. into the ground. Find the mean effective resistance of the ground. Also, if the ground resistance varies directly as the depth of penetration, find how far the pile will sink under the fourth blow.

4. An iron bar has a rectangular section 3 in. wide, 1 in. thick and a known tensile strength of 50,000 lbs. per sq. in. If on testing, the line of pull were $\frac{1}{4}$ in. from the axis of the bar in the direction of its weight, at what total load would the bar break?

5. Find the loss of transverse strength caused by a hole $1\frac{1}{2}$ inches in diameter bored through a spar 15 inches in diameter, the axes of the hole and spar being coincident.

6. Show how to find the deflection of a beam of length l resting upon two supports in the same horizontal plane, at a point distant x from the centre.

A beam of rectangular section and 12 ft. between supports deflects .01 in. under a load W_1 when b is vertical, and under a load W_2 when d is vertical. If $W_2 - W_1 = 1{,}250$ lbs., find suitable values for b and d, E being 1,200,000 lbs. Also find the corresponding increment of skin stress.

7. The sectional area of the web of a cast-iron girder of double-tee section is *five* times the area of the compression flange. The vertical distance between the centres of gravity of the top and bottom flanges is 9 inches. The working stresses are 4 tons in compression and 2 in tension. The moment of resistance of the whole section is 162 inch tons. The stiffness of the girder is .001 and the coefficient of elasticity of the material is 8,000 tons. Find, (*a*) the position of the neutral axis, (*b*) the span of the girder, (*c*) the total load on the girder, (*d*) the weight of the girder.

8. Prove the relation, clearly stating all assumptions :—

$$q = \frac{S}{I} A\bar{y}$$

Find the maximum intensity of shear in the central section of the girder in the preceding question.

9. Enunciate and prove Gordon's Formula, and explain Rankine's modification of the same.

Find the B. W. of a wrought-iron column, hinged at both ends, 4 inches in diameter and 40 diameters long. $\left(f = 36{,}000 \text{ lbs.}, a = \frac{1}{22\,5\,0}\right)$

10. Show how to find the total intensity of the skin-stress, in a long thin pillar, under a load of intensity f whose line of action is distant x from the axis of the pillar.

Find the value of x for the pillar in the preceding question, so that under a load of 40,000 lbs. the maximum stress may not exceed 10,000 lbs. per square inch.

11. A short cast iron column has an external diameter of 8 ins. and an internal diar. of 6 ins., and carries, by means of a bracket, a load of 50,000 lbs., the centre of gravity of which is 2 feet from the axis of the column. Determine the maximum intensities of the compressive and tensile stresses in the column.

12. A countershaft, 10 feet in length between the bearings, carries two pulleys each 2 feet in diar., one of which is in the centre of the shaft and the other four feet from it. Assuming the tension in the slack sides to be half that in the tight sides of the belts, determine :—(*a*) the "equivalent" twisting moment in the shaft, (*b*) the diar. of the shaft, and (*c*) the angle of torsion, when one pulley receives and the other transmits 50 H. P. at

80 revols. per min.; the sides of the two belts being horizontal and on opposite sides of the shaft. ($f = 10{,}000$ lbs. $G = 12{,}000{,}000$).

13. At a point in a strained mass there is a resultant tension of 5 upon a plane whose obliquity is $\cos^{-1} .3$, and resultant compression of 3 upon a plane whose obliquity is $\cos^{-1} \frac{7}{15}$. Find the principal stresses and also the position of the plane upon which the resultant stress is a shear only.

Find the conjugate stresses at the same point, for which the obliquity is $\cos^{-1} \sqrt{\frac{2}{3}}$.

14. State the conditions of equilibrium of any portion of a retaining wall above the level of the ground.

Obtain the relations, clearly stating all assumptions,

$$q = \tfrac{1}{2} - \tfrac{2}{3}\frac{R}{ft} > \tfrac{1}{6} \quad ; \quad q = \tfrac{1}{6}\left(\frac{ft}{R} - 1\right) < \tfrac{1}{6}$$

15. A wall A B C D with horizontal top and bottom faces A D and B C retain water on the vertical face A B. The face D C overhangs. Find how much greater A D may be than B C with safety, q being $\frac{1}{3}$, and B C $= \frac{1}{2}$ A B.

16. A wall C D E F of rectangular section retains water on the vertical face D E. A horizontal beam, B G K, hinged at G, which is vertically above the middle point H of the top of the wall C D, carries a weight W at K, while the end B is secured by means of a vertical bolt B A passing to the bottom of the wall. If $q = \frac{3}{8}$, D E = 18 feet, E F = 9 feet, F G = $33\frac{3}{4}$ feet, find W.

Weight of the masonry per cub. foot = 125 lbs. Also find the maximum stress in the base.

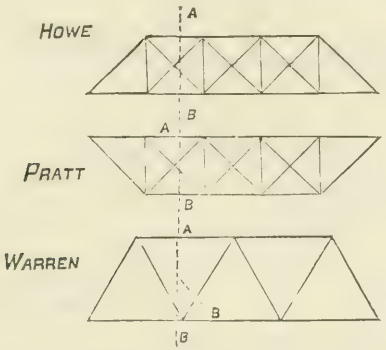
B.A.Sc. EXAMINATIONS.

THEORY OF STRUCTURES (*Paper III*).

THURSDAY, APRIL 5TH, 1894.

Examiners, ... { H. T. BOVEY, M.A., M.INST.C.E. / J. G. G. KERRY, B.A.Sc.

(1.)



In any one of the above trusses determine the maximum stresses due to live load in the members cut by the section A B.

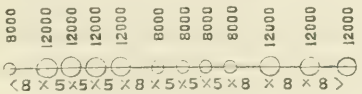
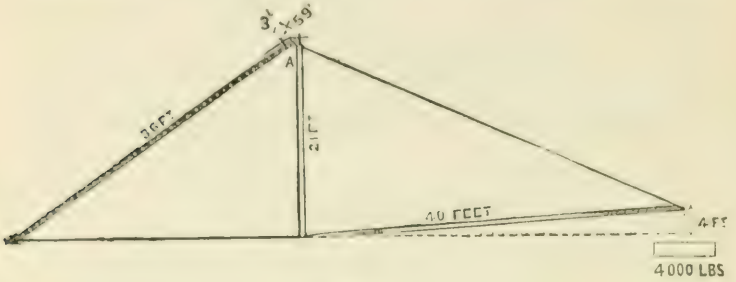


DIAGRAM OF ROLLING LOAD FOR ONE TRUSS

2. If a uniform rolling load of 1500 lbs. per foot be used instead of the above concentrations, determine the excess load to be placed at the head of the train to produce stresses equal to each of those found in (1).

3. If there be an iron floor beam across the bridge at each panel point, determine what the maximum loading on it will be under the diagram loads; and assuming the stringers to be spaced 7 feet c to c., calculate the maximum flange stress and shear and the number of rivets required to connect flange to web. Assume effective depth. Rivet shearing strength = 7500; Rivet bearing strength, = 12,000 lbs per sq. in.; thickness of web = $\frac{3}{8}$ in.

4. In a derrick loaded as in the Fig. below, determine the proper sectional area of the wrought iron goose neck across the first bolt (1-in.) hole at A.



B.A. Sc. EXAMINATIONS.

THEORY OF STRUCTURES (*Paper IV*).

SATURDAY, APRIL 7TH.

Examiners, ... { H. T. BOVEY, M.A., M.INST.C.E. / H. BAMFORD, M.Sc.

1. A cable suspended from two points carries a load which may be assumed to be uniform per horizontal unit of length. Shew that the curve of the cable will be a parabola.

2. The platform of a suspension bridge of 120 feet span, is supported by a single steel cable on each side attached to points 20 feet above the platform at one end and 80 feet above the platform at the other. Find (*a*) the cable stresses at the points of suspension and at the lowest point of the cable, (*b*) the length of the cable, (*c*) the weight of the cable. Load on bridge = 1200 lbs per lineal feet; the safe cable stress = 15,000 lbs. per square inch; the weight of the cable per cub. ft. = 490 lbs.

3. The chains, platform, rods, etc., of a suspension bridge of 570 feet span and 43 feet dip weigh 4000 lbs. per foot run of the bridge; and the anchorage chains, which are attached to saddles resting upon rollers on the piers, are inclined to the vertical at an angle of 45°. Determine the tension at the middle and ends of the two chains, the tension in the anchorage chains and the reactions at the piers.

4. Light suspension bridges are liable to considerable distortion under certain loads; explain this, and describe, with the aid of sketches, the various methods which have been employed to stiffen suspension bridges.

On each side of the bridge in Question 2, there are 22 suspenders.

Design a suitable stiffening truss for a live load of 1000 lbs. per lineal foot.

Determine the total length of the suspenders, and the stress in a suspender when the live load produces (1) an absolute max. shear, and (2) an absolute max. bending moment.

5. Explain what is meant by the equilibrated polygon and the line of resistance in an arch.

6. State the conditions which are necessary and sufficient to ensure the stability of the voussoirs of a masonry arch.

The intrados of an arch is a semi-circle with a diameter of 40 feet. The arch ring has a uniform thickness of 4 feet and weighs 90 lbs. per cub. foot. The superincumbent load may be taken at 400 lbs. per lineal ft. of the ring. Find the mutual pressures at the key-line and at the springing, these points of application being 2$\frac{1}{2}$ feet and 1$\frac{1}{2}$ ft. from the intrados.

7. Explain the object and deduce the equation of the transformed catenary. Also shew how to find the thrusts at the crown and springings.

8. Distinguish between a linear arch and an arched rib.

An arched rib is semi-circular in form, with pin ends, and is loaded with a weight W at a point between the centre and an abutment; shew how to determine the maximum intensity of stress at any section of the rib.

9. Deduce the conditions of equilibrium of a loaded arched rib hinged at both ends. A parabolic rib of 90 feet span and 15 feet rise is hinged at both ends and carries a load of 1000 lbs. at 5 feet from one end and a load of 5000 lbs. 10 feet from the other end. Find the axial thrusts and the shears at these points.

10. Determine the horizontal thrust induced in the rib of the preceding Question by a change of 60° F., from the mean temperature.

(Take co-efficient of expansion = .00000335).

EXAMINATION FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

DESIGNING.

Examiners, ... { Henry T. Bovey, M. Inst. C.E., LL.D.
J. G. G. Kerry, B.A. Sc.

1. (*a*) Impact machine for determining the effect of repeated stress on metals.

(*b*) Riveted Warren Girder, 120 ft. span.

2. (*a*) Roof truss, 90 ft. span, iron.
   (*b*) Pratt truss, pin connected, 120 ft. span.

3. (*a*) Roof truss, iron, 79 ft. span
   (*b*) Howe truss, 120 ft. span.

THIRD AND FOURTH YEARS.

THEORY OF STRUCTURES (HONOURS)

Paper I.

THURSDAY, 19TH APRIL:—MORNING, 9 A.M.

Examiner,..... H. T. BOVEY, LL.D.

1. A cylinder and a right cone of the same height, and upon bases of the same area, are placed upon a horizontal plane. Determine in each case the amount and the work of compression due to the weight of the material.

2. Shew how to deduce the general equations

$$\frac{d^2M}{dx^2} = \frac{dS}{dx} = -p$$

and apply these equations to determine the max. B.M. on a beam resting upon two supports in the same horizontal plane, and carrying a load whose intensity at any point is proportional to the square of the distance of the point from the middle of the beam.

3. Determine the rectangular section of max. strength which can be cut out of a given elliptic section, the major (vertical) and minor axes being respectively $2a$ and $2b$.

4. A horizontal beam 15 ins. deep, 9 ins. wide and 180 ins. between supports carries a load of 8,000 lbs. at the centre. Find the max. normal and shearing intensity of stress at a point 5—ins. from the neutral axis in a plane inclined at 45° to the vertical.

5. Find the maximum deflection of the beam in the preceding question, and also the work due to bending, E being 1,200,000 lbs. and the timber weighing 40 lbs. per cub. ft.

6. A beam ABC fixed at A and resting upon supports at B and C carries a uniformly distributed load of intensity w. Find the ratio of AB to BC so that the bending moments at A and B may be equal.

7. A girder ABCD is continuous over the supports A, B, C and D, and carries a uniformly distributed load of intensity w. The two side spans

are each of the same length. If an error Δ is made in measuring the length of the span BC, shew that the corresponding errors in the B.M. at B or C and in the reaction at A are respectively $.09wl\Delta$ and $.09w\Delta$.

8. A beam AC fixed at A and resting upon a support at C is hinged at a point B dividing the beam into the segments $AB = a$ and $BC = b$. The load upon the beam is uniformly distributed and of intensity w. Determine the reactions at A and C, the B.M. at A, and the deflection at the hinge.

9. Enunciate the Theorem of Three Moments in its most general form, assuming that the tops of the piers are not exactly in the same horizontal plane.

10. A girder is continuous over five supports, the four spans being each equal to 25 feet. A weight of 10 tons is placed at the centre of the second span. Find the work done in bending the girder. Find by how much the *third* support must be lowered to relieve it entirely of any pressure.

11. A cantilever of uniform thickness and with a profile in the form of cubical parabola ($y^3 = a^3x$) weighs w lbs. per cub. ft. Find the deflection at the free end.

FOURTH YEAR EXAMINATION.

THEORY OF STRUCTURES (HONOURS).

(Paper II.)

SATURDAY, APRIL 20TH:—MORNING, 9 A.M.

Examiners, ... { H. T. BOVEY, M.A., M.I.C.E. / H. BAMFORD, M.Sc.

1. A continuous girder of two equal spans AB BC, is fixed at A, and rests upon supports at B and C. A weight W_1 is concentrated at the middle point of AB and a weight W_2 at the middle point of BC. Find the reactions at the supports and the $B.Ms.$ at A and B.

Hence also show that if $W_2 = 3\ W_1$ the $B.M.$ at A is nil, and that if $3\ W_2 = 2\ W_1$, the $B.Ms.$ at A and B are equal.

2. A plate-web girder is continuous over three supports forming two spans each of 60 ft.; the web, which is 5 feet deep, is united to the flanges by $\frac{1}{2}$in. x $3\frac{1}{2}$ in. x $3\frac{1}{2}$ in. angle irons, and the flange plates are $\frac{3}{8}$in. x 18 in. wide.

Draw the diagrams of shearing forces and bending moments for the girder when loaded with 4,000 lbs. per foot run. Also determine, graphically or otherwise, the lengths and number of plates required in the flanges.

neglecting the effect of the web, and allowing a stress of 9,000 lbs. per sq. in. of the gross sectional area of the flanges.

3. Shew that the max. deviation from the vertical of the axis of a long thin loaded strut is

$$\frac{l \sin \frac{\theta_0}{2}}{2 F_\mu (\phi)}$$

θ_0 being the slope of the axis at the end, l the length of the strut and $F_\mu (\phi)$ an elliptic integral of the *first* kind.

4. Shew how to find the stresses at any point of a thick hollow cylinder. A 4 inch steel cylinder has to withstand a pressure of 3,600 lbs. per sq. in. Find its proper thickness, the max. allowable stress being 20,000 lbs. per sq. inch.

5. A stiffening truss for a suspension bridge of 200 ft. span is hinged at the centre. Draw the max. shear and *B.M.* diagrams for the truss under a live load of 1,000 lbs. per lineal ft.

6. In an arched rib deduce the general equations of equilibrium,

$$\frac{d^2 M}{dx^2} = \frac{dS}{dx} = -(w H \frac{d^2 y}{dx^2})$$

7. A parabolic rib of 64 feet span and 6 feet rise has fixed ends, is of uniform depth and thickness, and is designed for a dead load of 32 tons and a live load of 64 tons. Find the horizontal thrust on the rib, when the live load covers one-half of the arch.

FOURTH YEAR EXAMINATION.

HYDRAULICS (*Paper I*).

THURSDAY, APRIL 12TH, 1894:—MORNING, 9 A.M.

Examiners,..... { H. T. BOVEY, M.A., M.I.C.E.
H. BAMFORD, M.Sc.

1. State and prove Bornouilli's Theorem, and apply it to find the maximum amount of water which can be forced through a tube 1 in. in diameter which gradually contracts to ¼ in. diameter at the centre and then gradually expands again to 1 in. diameter where it is open to the atmosphere.

2. State the Laws of Fluid Friction.

The wetted surface of a vessel moving at 12 knots (a knot = 6056 ft.) per hour is 10,000 sq. ft.; if the resistance per sq. ft. is .004 lbs. at 1 ft. per second, find the skin resistance and the power required to propel her.

3. Show that, theoretically, the co-efficient of contraction for a Borda's mouthpiece is $\frac{1}{2}$, and also that the co-efficient of discharge is $\frac{1}{2}$ when the water runs clear of the tube and $\frac{1}{\sqrt{2}}$ when the tube runs full.

4. Water approaches a rectangular orifice in the vertical face of a dam with a given velocity. Show how to find the discharge through the orifice.

The upper edge of a rectangular orifice 1 ft. wide is 12 ft. below the water surface; the water approaches the orifice with a velocity of 4 ft. per sec., and flows through the orifice at the rate of 100 cubic ft. per sec.; find the vertical depth of the orifice.

5. Why is a triangular notch more suitable for gauging than a notch of rectangular section?

The angle of a triangular notch is 90°; the depth of water flowing through the notch is 16 ins.; the flow per minute is 320 cub. ft.; find the co-efficient of discharge.

6. Find the diameter of a pipe 3000 ft. long, which has to deliver 2000 gallons of water per minute with a loss of head equal to 24 ft.

$$(f = .0064)$$

7. A line of piping 2000 ft. long consists of four equal lengths AB, BC, CD, DE, and connects two reservoirs in which the difference of water level is 100 ft. At B the pipe diameter abruptly changes from 4 ins to 6 ins., at C from 6 ins. to 4 ins., and at D from 4 ins. to 2 ins. Also, the water at D flows through a 1 in. orifice in a thin plate ($c_c = \frac{5}{8}$). Determine the total losses of head due to friction and at the sudden changes of section.

8. The water surface of a reservoir is 300 ft. above datum, and a 4 ins. pipe, 600 ft. long, leads from the reservoir to a point 200 ft. above datum. Find the height to which the water would rise (a) if the end of the pipe is open to the atmosphere, (b) if the pipe terminates in a 1 in. nozzle.

In the latter case find the longitudinal force on the nozzle.

9. Explain clearly what takes place when a large column of water flowing through a pipe is rapidly brought to rest by closing one end.

A body of water flows along a 4 in. pipe 1000 ft. long at the rate of 20 ft. per second. If the stop valve at the end is closed in 1-10th of a second, find the increase of pressure near the valve.

10. In the transverse section $ABCD$ of an open channel, with a vertical slope of 1 in 300, the bottom width BC is 20 ft., the angle ABC is 90° and the angle BCD is 45°. Find the height to which the water will rise so that the velocity of flow may be a maximum, and also find the discharge across a transverse section.

11. A simple approximate formula in practice for flow of water in open channels is

$$v = \frac{11}{12}\sqrt{2\,m\,h},$$

h being the fall in ft. per mile. Find the corresponding value of f.

12. Find the pumping H.P. required to deliver 1 cub. ft. of water per second through a 1 in. nozzle at the end of a 3 ins. hose, 200 ft. long, f being .016.

THIRD AND FOURTH YEARS EXAMINATION.

HYDRAULICS (*Paper II*).

THURSDAY, APRIL 12.

Examiners,..... { H. T. BOVEY, M.A., M.I.C.E.
H. BAMFORD, M.Sc.

1. A water-tank has an orifice in one side 3 ins. in diar. and 8 ft. below the surface. Find the reaction on the opposite side of the tank when the tank travels at the rate of 10 ft per second (*a*) in the same direction as the jet, (*b*) in a direction opposite to that of the jet.

In case (*b*), find the efficiency.

2. Show how to find the efficiency when a jet impinges upon a flat vane oblique to the direction of the jet.

3. 360 cubic feet of water per min. enter an overshot water-wheel of 40 ft diameter per minute; the velocity (v_1) of the water at the point of entrance is 15 ft per second, and the angle between the radius to this point and the vertical is 12°; the angle (a) between the direction of the impinging jet and the direction of the wheel's motion is 9°; the angles between the horizontal and the radii to the points where spilling begins and ends are 50° and 70° respectively; find the speed of the wheel so that the mechanical effect of impact and weight may be 18 H.P. ($k = \frac{1}{2}$).

4. Show how to trace the profile of a bucket for a water-wheel assuming it to be a circular arc.

The diameter of a wheel is 40 ft., the depth of the crown is 3 ft.; the inner edge of the bucket is radial, and the direction of the lip makes an angle of 30° with the tangent to the periphery of the wheel; determine the form of the bucket.

5. Show that the max. efficiency of an undershot wheel with plane floats does not exceed $\frac{1}{2}$, and describe the measures adopted in practice to make such wheels work to the best advantage.

6. Point out the distinguishing characteristics of impulse as compared with reaction turbines.

7. A Scotch turbine makes 100 revols. per minute; the distance between the centre of the outlet orifices and the axis of rotation is 14 ins., the head over the orifices is 10 ft., and the orifices are 2 ins. in diar. Find the H.P. of the turbine.

8. In an Axial Flow reaction turbine, $H = 14$-ft.; $h = 1$-ft; $Q = 200$ cub. ft. per second; $\beta = 16°$, $\gamma = 21°$; $8A_1 = 7A_2$; the efficiency $= .80$; $R = \frac{r_1 + r_2}{2} = 3$-ft.; determine a, A_1, A_2, and the speed and H.P. of the turbine.

9. Point out the main differences between centrifugal pumps and turbines.

10. A centrifugal pump with a 12 in. fan delivers 1000 gallons per minute, the actual lift being 20 ft and the *gross* lift (allowing for friction, etc.) 30 ft. The velocity of whirl (v''_w) at the outlet surface is reduced one-half $\left(= \frac{v'_w}{2}\right)$. Find the revolutions of the pump per minute.

FOURTH YEAR EXAMINATION.

HYDRAULICS (HONOURS).

FRIDAY, APRIL 13TH, 1894.

Examiners, ... { H. T. BOVEY, M.A., M. I. C. E. / H. BAMFORD, M.Sc.

1. Water flows through a pipe of gradually varying diameter: obtain the relation,

$$z + \frac{p}{w} + \frac{v^2}{2g} + \int \frac{f}{g} \frac{Q^2}{\pi^2 r^5} \, ds = a \text{ const.},$$

and state the assumptions upon which it is based.

500 gallons per second are forced through a conical pipe 20 ft. long, the diameter gradually increasing from 3 to 6 ins. Determine the difference of pressure at the two ends of the pipe, f being .0064 and the axis horizontal ($g = 32$).

2. A motor is fed through a pipe of 6 ins. diameter and 1000 ft. in length, running from a reservoir in which the water surface is 200 ft. above the motor. Find the velocity of flow which will give a max. H.P. Also find the H.P.

3. Adopting Navier's hypothesis of viscous resistance, shew that the velocity curve in a transverse section of an open channel, in which a permanent regime has been established, is a parabola of which the equation may be expressed in the form

$$v = -\frac{wi}{2k}y^2 + ay + V_0$$

Hence, show that the mid-depth ($v_{\frac{1}{2}}$) and mean (v_m) velocities are connected by the equation,

$$v_{\frac{1}{2}} - v_m = \frac{wih^2}{24k}$$

h being the depth of the stream and k the co-efficient of viscosity.

4. Shew that the fall of surface level (z) in an open channel of gradually varying cross section, and in which the motion is steady, is given by the equation

$$z = a - \frac{v_2^2 - v_1^2}{2g} + \int \frac{P}{A}\frac{F(v)}{w}\,ds$$

5. If a quantity Q_2 of water is drawn off by means of a branch from a main capable of giving a total end service Q, the end service will be diminished, very approximately, by $\frac{1}{2}Q_2$, $\frac{1}{3}Q_2$, $\frac{1}{4}Q_2$—according as the junction in the main divides the main into portions in the ratio of 1 to 1, 1 to 2, 1 to 3, ...

6. In a centrifugal pump the external diameter of the fan is 2 ft., the internal 1 ft., and the width 6 in. Determine the speed and efficiency of the pump when delivering 2000 cub. ft. per minute against a pressure head of 64 ft., the inclination of the wheel vanes at outlet surface being 90°.

7. In a radial impulse turbine,
$Q = 9$ cub. ft. per second: total available head $= 535$ ft., of which 10 ft. is absorbed by friction; $\gamma = 17° 50'$; $r_1 = 4$ ft.; $r_2 = 4.6$ ft.; the efficiency $= 80$ per cent.; determine the speed of the turbine and the vane angles α and β.

M.A.E. DEGREE.

RAILWAY LOCATION (*First Paper*).

Examiners, ... { H. T. Bovey, LL.D., M.Inst. C.E., F.R.S.C.
C. H. McLeod, M.A.E., F.R.S.C.

SATURDAY, MARCH 31ST, 1894:—9 TO 12.

1. Mention what information you would consider necessary for an intelligent location of a railroad route between two cities, explaining clearly the relative influence of the various items and the reasons therefor.

2. With the general route for a railroad selected, describe how you would proceed to make the final location, outlining clearly why the methods you select for obtaining and utilizing information are preferable to other methods practised. Mention also the organization of the various parties of assistants you would employ, and reasons for so doing.

3. Discuss the question of curvature on a railroad, giving the reasons for its employment pro and con and the comparative weight of these reasons. What do you consider the limit of curvature should be on first class roads?

4. Gradients on curves should or should not be compensated for curvature. State when you would compensate and when not. Also in compensating, give a general synopsis of the amount you would allow under various conditions usually met with, with your reasons for so doing.

5. Place a grade line on the accompanying profile, and mark the class of structures to be used.

M.A.E. DEGREE.

RAILWAY LOCATION (*Second Paper*).

Examiners, ... { H. T. Bovey, LL.D., M.Inst. C.E., F.R.S.C
C. H. McLeod, M.A.E, F.R.S.C.

SATURDAY, MARCH 31ST:—2 TO 5 P.M.

1. Mention the general divisions into which the cost of transportation is divided, and point out what divisions would be affected by a reduction of curvature and grade on the line, and how they would be affected.

2. The ruling gradient of a certain engine division of 110 miles is 1 per cent. extending 10 miles. This could have been changed to 12½ miles of $\frac{1}{10}$ per cent. grade, for $800,000 additional at time of construction, money at 7 per cent. interest. Discuss the advisability of so doing when the anticipated traffic was 600 tons passenger haulage and 3000 tons freight

haulage each way per day in first year, increasing to 1,800 tons and 12,000 tons respectively, at end of 10 years. Also at the end of the ten years how much would it pay to expend to reduce this from 1 per cent. to $\frac{5}{16}$ per cent., if not done before that time (train mile assumed to cost $1.00).

3. Explain what is meant by a virtual profile based on certain speeds, and show what use it can be put to in placing grades on profile for railway construction.

4. How much super-elevation do you put on curves? Why?

5. Discuss the case of a railroad to be built through a thinly settled country, good future prospects and probable rapid development, the road not being liable to be part of a trunk line. The country is of such an undulating nature, that grades of 0.5 per cent. to 1.5 per cent and curves of 3 degree to 12 degrees maxima, may be used. Wood and stone are both plentiful, and money *can* be obtained for any desired class of road.

Give a detailed description of the class of road you would advise building, and of the supposable typical structures, etc., you would erect: consider the question from its first survey until ready for operation.

FIRST YEAR.

MAPPING AND LETTERING.

MARCH 31ST, 1894:—9 TO 12 A.M.

Examiners, ... { C. H. McLEOD, MA.E. / CECIL B. SMITH, B.A.SC.

1. Print the following title, freehand, in India Ink:—

"Detail Drawings"
of
"The Nasmyth Steam Pile Driver,"

using Egyptian capitals for the first line, small Egyptian for the second line, and capitals and small Roman for the third line. Use your own taste as to spacing, shape and variations in the style of letters.

2. Print "Dorchester" in vertical Egyptian capitals, freehand in India Ink and throw a water-colour shading from the letters.

3. Print with the brush in water colour the first six letters of alphabet, in Inclined Egyptian Capitals.

4. Describe, with a compass, 2 concentric circles, 2 inches and 6 inches in diameter. Divide the annular space between the circles into four equal parts, freehand. Colour these spaces with the following water-colours:—Prussian blue, Italian pink, green and burnt sienna.

FIRST YEAR.

FREEHAND DRAWING.

TUESDAY, APRIL 10TH:—9 TO 12 A.M.

Examiners, ... { A. T. TAYLOR, F.R.I., B.A
C. B. SMITH, B.A.Sc.

1. Draw on a slightly enlarged scale the ornament before you.

2. Make an outline drawing of the group of models as they appear from your point of view.

3. Draw the large model illustrating arrangement of compound reservoir system as seen from your position.

FIRST YEAR.

PROJECTION.

WEDNESDAY, APRIL 11TH:—9 A.M. TO 12.

Examiners, ... { C. H. MCLEOD, MA.E.
CECIL B. SMITH, B.A Sc.

1. A hexagonal prism is 6 inches long, and the greatest width of an end is 2 inches. Draw its plan and elevation when one of its long faces is in the horizontal plane, and its axis is at 30° to the vertical plane.

2. A right cone has a base $2\frac{1}{2}$ inches in diameter and a 4 inch generating line, draw its plan and elevation when the base is vertical and its axis is inclined at 45° to the vertical plane.

3. A square prism of 2 inch sides and 4 ins. long is penetrated by a second square prism of $1\frac{1}{2}$ in. sides and 3 ins. long, 2 edges of the smaller prism meet 2 edges of the larger one at right angles. Draw the plan and elevation, showing the lines of penetration, when the larger prism is vertical and the axis of the smaller one is inclined at 30° to the vertical plane.

4. There is a box 4 ins. long, 3 ins. wide and 2 ins. deep (inside measurements), made of wood $\frac{1}{4}$" thick, one of the larger sides is in the horizontal plane. Draw its plan and elevation when the cover is opened at an angle of 30° and the edges of the box make angles of 45° with the vertical plane, the box being open toward the observer.

5. A cylinder 6 ins. long and 3 ins. diameter stands vertically on the horizontal plane. It is penetrated by a rectangular bar 6 ins. long and $1\frac{1}{2}$ ins. side so that the diagonals of the ends of the bar are vertical, and the axis of the bar is inclined at 30° to the vertical plane. Draw the plan and elevation and give the developments of the cylinder and one end of the bar.

6. Construct the necessary Isometric scale and give an Isometric view of a cube 2 ins. square surmounted by a cylinder 4 ins. long and $1\frac{1}{2}$ ins. diameter, and having its axis coincident with that of the cube.

FIRST YEAR.

GEOMETRICAL DRAWING.

WEDNESDAY, APRIL 11TH:—2 TO 4 P.M.

Examiners, ... { C. H. McLEOD, MA.E. / CECIL B. SMITH, B.A.Sc.

1. Construct an equilateral triangle of 2 ins. vertical height, scale off the length of a side in inches and decimals of an inch, and write the length on one side.

2. A chord of a circle is 3 ins. long, and the height of the corresponding segment is $1\frac{1}{4}$ ins., find the radius of the circle, and its length.

3. Inscribe a heptagon in a circle of 3 ins. diameter.

4. Construct an octagon of 1 in. sides, and construct on the *same* base a triangle of equal area.

5. Out of a circle of 2 ins. diameter cut a concentric circle which shall have one third the area of the larger circle.

6. Construct by an accurate method an ellipse of $2\frac{1}{2}$ ins. major axis and $1\frac{1}{2}$ in. minor axis.

7. Draw the involute of a circle of $1\frac{1}{2}$ in. diameter.

8. A circle of 1 in. diameter rolls on a circle of 3 inches diameter. Find the curve generated by a point $\frac{1}{4}$ in. from the centre of the rolling circle. Draw also the curve traced by a point $\frac{1}{4}$ in. without the circumference of the smaller circle.

SECOND YEAR.

DESCRIPTIVE GEOMETRY.

WEDNESDAY, APRIL 11TH :—9 TO 12 A.M.

Examiners,..... { C. H. McLEOD, MA.E. / J. G. G. KERRY, B.A.Sc.

1. A right cone stands on the horizontal. The apex angle is 60° and altitude 3 in. A plane which makes an angle of 40° with the horizontal and 50° with the vertical meets the axis of the cone at a point 1 in. from the apex. Find the horizontal and vertical projections of the line of intersection and show it when rabatted into the horizontal plane.

2. The diameter of a cylinder is 1 in. Its axis is 0.75 in. above the horizontal and inclined to the vertical at 30°. Find the traces of a plane tangent to the cylinder and inclined to the horizontal at 40°.

3. The base of a right hexagonal prism makes an angle of 45° with the horizontal and 60° with the vertical, and one edge of the base makes an angle of 30° with the horizontal. The faces of the prism are 05 in. wide and 2 in. long.

4. Two edges of a tetrahedron make angles of 30° and 45° respectively with the horizontal. Find the horizontal projection of the solid, and the vertical projection on a plane making an angle of 15° with the horizontal projection of the side inclined at 30°. The length of an edge of the tetrahedron is 2 in.

5. Show a cone in axometric projection. The axes of projection make angles of 110°, 120° and 130°. The diameter of the base of the cone is 2 in. and altitude 3 in.

6. A right cylinder is penetrated by a right cone, the apex of the cone meeting the axis of the cylinder. The diameter of the cylinder is 2 in. The apex angle of the cone is 80°, and its axis meets the axis of the cylinder at an angle of 30°. Show the elevations of the line of penetration when the cylinder is vertical, one plane parellel and perpendicular to the solids.

SECOND YEAR.

SURVEYING.

MONDAY, APRIL 2ND:—MORNING, 9 TO 12.

Examiners..... ..... { C. H. McLEOD, MA.E.
J. G. G. KERRY, B.A.Sc.

1. What is traverse surveying, and what advantage is there in adopting this method? What precautions are necessary in the instrumental work?

2. Describe the peg adjustment of the dumpy level. How would you proceed to run a line of levels with an instrument out of adjustment? Mention four sources of error in ordinary levelling.

3. In staking out a piece of work, the elevation of gradient at sta. 5 is 76.0 and the gradient is rising at a rate of 0.90 per 100. The ground elevation on the centre line at sta. 5 is 85.0, at sta. 6, 89.6, and at sta. 7, 83.2, and the ground slopes downwards to the right. Write out the level notes, assuming all other necessary information.

4. A pier is built in the middle of a river 300 feet wide, and it is required to connect it with a chain survey on the adjoining shore. How would you do this, using no angular instrument? Give the approximate length of the lines employed.

5. What are the necessities for accurate measurement of distances? What do you consider would be the best way to measure up the hill shown in section on the board, using a level to aid if so desired?

6. Describe two methods of finding the astronomical meridian, giving all formulae necessary in the work.

7. In a plane table survey round a tract of land commencing at corner A, the instrument is moved up from D to E, describe how you would set up at E and what checks you would have on the position of the instrument.

8. In tracing an old compass survey, what information is necessary besides the notes of the old lines? How would you guard against local attraction on such a survey? What are the causes of sluggish movements of the needle, and how are they to be removed?

9. Prove that the angle between the two mirrors of an optical square is 45°.

10. How would you produce a straight line with a transit instrument? How would you adjust a transit theodolite for the measurement of angles of altitude; and supposing the instrument was not in adjustment, how would you arrange your observations so as to eliminate error?

SECOND YEAR SURVEYING.—(*Second Paper*).

MONDAY, APRIL 2ND, 1894:—2 TO 5 P.M.

Examiners,..... C. H. McLEOD, MA.E. / J. G. G. KERRY, B.A.Sc.

1. Determine the error of the transit in collimation adjustment as measured on the scale. (*a*) The distance of the scale being 30 ft, what is the error of collimation in seconds of arc?

2. Determine the stadia constant in the given telescope, by three measurements.

3. Calculate the area bounded by the following closed survey by the method of double longitudes:

1.	N 35° E	6.49 chains (Gunter).
2.	S 56¼ E	14.15
3.	S 34 W	5.10
4.	N 56 W	5.84
5.	S 29½ W	2.52
6.	N 48¼ W	8.73

4. Plot the lines shown on the blackboard, and determine the enclosed area instrumentally. (*a*) Divide the outer boundary so as to form three equal areas.

5. Measure the inclination of the line joining the point marked A to the point B, by the inclinometer.

6. Using the prismatic compass, measure the three angles of the triangle L M N.

THIRD YEAR.

SURVEYING AND PRACTICAL ASTRONOMY.

MONDAY, APRIL 9TH:—9 TO 12.

Examiners..... C. H. McLEOD, MA.E. / J. G. G. KERRY, B.A. Sc.

1. Describe and illustrate by a sketch the construction of an aneroid barometer. For what kinds of work may levelling be done

with an aneroid, and how should such levelling be conducted in order to eliminate errors? To what are the errors mainly due? (*a*) How would you test the accuracy of an aneroid barometer?

2. Given the stations A and B of a triangulation survey. Find a formula for the difference in altitude of the two stations, depending upon the observed angles of altitude of the stations from each other. (*a*) To what is refraction due, and how may observations of this kind be used for the determination of the coefficient of refraction?

3. It is required to make a complete survey of a river for hydrographic purposes, as sketched on the blackboard. There is a rapid current. Describe how you would conduct the survey, giving full details as to instruments and other requirements. State what information you would seek, and the precautions to be observed in the work.

4. Under what circumstances is it impossible to establish your position by angles taken to three fixed points.

5. Describe the adjustments of a transit instrument which is to be used for the measurement of both horizontal and vertical angles. How would you measure these angles, with the instrument not in adjustment, so as to eliminate error.

6. Explain the method by which you would observe the sun by equal altitudes for the determination of the meridian. (*a*) Show how to correct for the mean position of the sun in azimuth.

7. What is the "equation of time." Given the equation of time at Greenwich, how do you find it for Montreal?

8. Explain how the "equatorial intervals" of a transit instrument are obtained. (*a*) Show by an example the use of these.

9. How would you bring an astronomical transit into the meridian?

10. Obtain the general equation of the transit instrument (Mayer's Formula).

THIRD YEAR.

SURVEYING AND PRACTICAL ASTRONOMY. (*Second Paper.*)

MONDAY, APRIL 9TH:—2 TO 5 P.M.

Examiners,..... { C. H. McLEOD, Ma.E.
J. G. G. KERRY, B.A.Sc.

1. Determine the difference in altitude of the points A and B on the wall, using the transit instrument for this purpose. The distance between the instrument and the wall is to be measured with the tape.

2. The point M is distant from the point N 25 feet. Determine the length XY by the use of the plane table.

3. Calculate by the method of end areas the number of cubic yards in the cutting shown on the contour plan. Grade at A is 75 and rises towards B at 0.80 per 100. Width of roadbed 18 feet. Side slopes 1 to 1.

4. Determine the collimation and level errors of the Wye level, and calculate the total error of adjustment at a distance of 100 feet. The scale value of one division of the level is 15 second, of arc.

5. The altitude of the sun's centre was observed this forenoon to be 20° 15′. Calculate its azimuth and the local mean time of the observation. The latitude is 45° 30′.

6. On April 5th, a mean time clock marked $7_h\ 43_m\ 25_s$. when a sidereal clock with which it was compared marked $8^h\ 46^m\ 18^s$. The error of the sidereal clock was 0.34 sec. fast. Find the error of the mean time clock on Eastern standard time (5 hours slow of Greenwich). The longitude is $4^h\ 54^m\ 18^s.\ 65^s$.

THIRD YEAR.

DESCRIPTIVE GEOMETRY.

FRIDAY, APRIL 20TH, 1894:—9 TO 12 A.M.

Examiners..... { C. H. McLEOD, Ma.E.
J. G. G. KERRY, B.A.Sc.

1. In a spherical triangle A B C, the angle A is 100° and the angle B 120°. The side c is 70°. Find the other parts.

2. Represent on L'Orgna's projection the 5° circles of latitude between the pole and 75° N. latitude, and also the hourly meridians. The radius of the sphere is 4000 miles, and the scale 400 miles to one inch.

3. Describe the method of constructing a map on the ordinary polyconic projection, and from the tables write down the quantities necessary to plot each 5° line between 10° and 20° N. latitude and covering 20° of longitude.

4 Given the projection of a cube and a cylinder as on the blackboard, show the shadow cast by the cube on the cylinder and the shadow cast by both objects on the horizontal plane.

5. Given the perspective projection of a vertical and horizontal line as on the blackboard. Find the lengths and position of the lines. The distance of the eye from the projection plane is 15 feet and the height 6 feet.

6. Find the perspective of the shadow cast by the vertical line when the rays make angles of 45° and 30° with the horizontal and vertical respectively.

B.A. Sc. EXAMINATIONS.

GEODESY AND PRACTICAL ASTRONOMY.—(*First Paper*)

MONDAY, APRIL 2ND, 1894:—9 TO 12 A.M.

Examiner, ...C. H. McLEOD, MA E.

1. Discuss the precise determination of time by a good portable Astronomical transit. The number and positions of the stars to be observed, and especially the methods you would adopt with a view to the elimination of errors from all sources. (*a*) Explain by example the reduction of transit observations by the method of least squares.

2. Give an example of the measurement of a base line of about 1,500 feet by a steel tape. State the precautions to be adopted in the measurement, the corrections which are required in the reduction, and give the methods by which these are computed.

3. Explain a method of investigating the errors of graduation in the circles of Engineering instruments, without the aid of a comparator.

4. Show that the error due to eccentricity is eliminated by taking the mean of readings of equally spaced microscopes or verniers. (*a*) Show how to measure the eccentricity when there are two microscopes.

5. Obtain a formula for the calculation of gravity from observations with a Bessels reversible pendulum. (*a*) What are the quantities to be most accurately determined in such observations? (*b*) What are the corrections to be applied in order of importance?

B.A.Sc. EXAMINATION.

GEODESY AND PRACTICAL ASTRONOMY (*Second Paper*).

MONDAY, APRIL 2ND, 1894:—2 TO 5 P.M.

Examiner,..... .....C. H. McLEOD, MA.E.

1. Calculate the latitude from the following observation with a zenith telescope.

Stars position.	Declination.	Micrometer.	Level.	
			North.	South.
N	55° 30′ 25″.7	30.540	30.5	36.3
S	35° 20′ 13.5″	15.325	32.4	35.8

Value of one revolution of micrometer 40″, value of one division of level 1″.2.

2. Determine the difference in time between the two mean time chronometers by comparisons with the sidereal chronometer.

3. The time of one vibration of a magnet was observed to be 4 528 sec. The deflection caused by the same magnet at 30 c.m. was 24° 50′, and at 40 c.m. 10° 07′ 30″. The temperature during the observations was 16.0 C, effect of 90° torsion 2′.5. Arcs of vibration 12′ and 7′. Instrumental constants as given in the tables. Calculate the horizontal component of the Earth's magnetism.

FIRST YEAR.

CHEMISTRY.

FRIDAY, APRIL 13TH:—MORNING, 9 TO 12.

Examiners,..... { B. J. HARRINGTON, B.A., PH.D.
NEVIL NORTON EVANS, M A.Sc.

NOTE:—Answer any ten questions.

1. Tell what you know with regard to the nature of flame. What is the difference between an oxidizing and a reducing flame, and how may each be produced with the blowpipe?

2. State Avogadro's Law, and show why the molecule of chlorine is supposed to contain 2 atoms.

3. How is sulphuric acid prepared? Give a sketch of the apparatus employed and write equations representing the reactions involved.

4. How much sulphur is required for the production of 10 litres of sulphurous anhydride?

5. Describe carefully Marsh's test for arsenic, giving a sketch of the apparatus employed.

6. Mention one of the principal methods of preparing sodium carbonate from common salt, giving the different stages in the process and writing equations representing reactions involved.

7. Tell what you know with regard to silver and its compounds.

8. 1 gr. of barium chloride is dissolved in water and enough sulphuric acid is added to precipitate all the barium as sulphate; what will be the weight of the precipitate? (Ba, 137.)

9. How would you distinguish between (*a*) a soluble salt of zinc and one of aluminium; (*b*) a soluble salt of arsenic and one of cadmium; (*c*) a soluble salt of copper and one of bismuth; (*d*) a soluble ferrous salt and a ferric one?

10. Give blowpipe tests for 5 of the following metals:—Lead, manganese, cobalt, copper, antimony, nickel.

11. How would you distinguish (*a*) between a sulphate and a phosphate; (*b*) between a bromide and an iodide; (*c*) between a chloride and a nitrate?

SECOND YEAR.

(*Departments of Mining and Practical Chemistry*).

PRACTICAL CHEMISTRY.

SATURDAY, APRIL 7TH :—MORNING, 9 TO 12.

Examiners, ... { B. J. HARRINGTON, B.A., PH.D.
NEVIL NORTON EVANS, M.A.Sc.

NOTE.—Students in Mining Course answer any eight questions; Students in Practical Chemistry Course, any ten.

1. Give the principal reactions of 5 of the following metals:—Lead, arsenic, tin, cobalt, magnesium, potassium.

2. Give two methods for the separation of cobalt and nickel, writing the equations representing the principal reactions that take place in one of the two cases.

3. How much sodium choride must be added to a solution containing 1 gram of silver nitrate in order to precipitate all the silver as chloride; and what will be the weight of the precipitate produced?

4. A solution under examination may contain metals of the copper and arsenic groups; how may it most quickly be determined whether it does or not; and, if found to contain these metals, how is the solution to be treated in order to separate them from any other metals that may be present?

5. Give equations representing the reactions that take place in any 5 of the following cases:—(*a*) solution of bismuth chloride is treated with a large excess of water; (*b*) solution of aluminium chloride is treated with ammonium sulphide; (*c*) solution of chromic acid is treated with hydrochloric acid and sulphuretted hydrogen; (*d*) metallic zinc is treated with extremely dilute nitric acid; (*e*) solution of ferric chloride is treated with barium carbonate; (*f*) calcium oxide is treated with water; (*g*) strontium sulphate is digested with solution of sodium carbonate.

6. What precautions are to be taken in precipitating, filtering and washing the sulphides of the metals of the iron group?

7. How are barium, strontium and calcium separated from a solution which is thereafter to be tested for magnesium?

8. How is sulphuretted hydrogen prepared in the laboratory; how much of each of the producing substances is required to produce enough gas to precipitate 1 gram of copper from solution? (Cu, 63.)

9. Give the principal tests for 4 of the following acids: Nitric, phosphoric, hydrobromic, hydrosulphuric, hydrofluoric.

10. Give the blowpipe tests for 5 of the following metals; Lead, arsenic, iron, silver, manganese, copper.

11. A solution contains iron, chromium, zinc, magnesium, phosphoric acid and hydrochloric acid; how may the presence of the metals be recognized, and how is their separation effected? Give the reason for each operation involved.

THIRD YEAR HONOURS IN NATURAL SCIENCE AND THIRD YEAR IN APPLIED SCIENCE.

(Department of Mining.)

DETERMINATIVE MINERALOGY.

MONDAY, APRIL 23RD:—MORNING, 9 TO 11.

Examiners, ... { B. J. HARRINGTON, B.A., PH.D. / NEVIL NORTON EVANS, M.A.Sc.

1. Describe carefully the production of the oxidizing and of the reducing flame with the blowpipe; point out their distinguishing characteristics, and give examples of their use in determinative mineralogy.

2. Give the dry reactions of 5 of the following elements: Arsenic, copper, sulphur, phosphorus, boron, fluorine, titanium.

3. How is the operation of "roasting" performed, what is its object, and what are the principal chemical changes involved?

4. Make notes on the determination (*a*) of the lustre of minerals; (*b*) of the fusibility of minerals; (*c*) of the action of hydrochloric acid on minerals.

5. How is the hardness of minerals determined? Name in order the members of the "Scale of Hardness."

6. How would you distinguish between (*a*) pyrite and chalcopyrite; (*b*) magnetite and menaccanite; (*c*) hematite and limonite; (*d*) almandine and rutile; (*e*) quartz and topaz; (*f*) titanite and tourmaline?

7. Give the blowpipe characters of 5 of the following minerals: calamine, beryl, celestite, chrysocolla, dolomite, prehnite, zircon.

8. What is the action of hydrochloric acid upon each of the following minerals: cuprite, siderite, gypsum, nephelite, apatite, zircon.

B.A. Sc. EXAMINATIONS (*Department of Chemistry*).

INORGANIC CHEMISTRY.

FRIDAY, MARCH 30TH:—AFTERNOON, 2 TO 5.

Examiner, ... B. J. HARRINGTON, B.A., PH.D.

1. Discuss the constitution of the acids of Phosphorus. How are the three Calcium Phosphates prepared? Give their formulæ.

2. Distinguish between endothermic and exothermic reactions. Is the heat evolved in a chemical reaction a measure of the affinity between the atoms concerned?

3. Explain the constitution of Fluosilicic, Disilicic and Disulphuric Acids.

4. Point out the principal analogies between the compounds of Phosphorus, Antimony and Arsenic.

5. What are Aluminates? Discuss their constitution, giving examples.

6. Give the formulæ and the properties of the Oxides of Lead.

7. State what you know with regard to the compounds formed by Salts of Mercury with Ammonia.

8. Give the preparation and properties of the Chlorides of Mercury and Tin.

9. State briefly how you would prepare any four of the following compounds:—Sulphuryl Chloride, Boron Trichloride, Potassium Hydrosulphide, Sodium Thiosulphate, Cuprous Oxide, Chromyl Chloride.

10. What takes place (*a*) when Carbon Dioxide is passed into a solution of Potassium Manganate, (*b*) when Microcosmic Salt is heated, (*c*) when a mixture of Hydrogen Sulphide and Carbon Disulphide vapor are passed over heated Copper, (*d*) when Lead Nitrate is heated?

11. Suggest and discuss methods for determining the atomic weights of Copper, Calcium, Magnesium, Manganese, Aluminium, Platinum.

12. Distinguish between valency and affinity, and explain the methods involved in determining valency.

B.A.Sc. EXAMINATIONS (*Department of Practical Chemistry*).

ORGANIC CHEMISTRY.

SATURDAY, APRIL 7TH:—MORNING, 9 TO 12.

Examiner,..... B. J. HARRINGTON, B.A., Ph.D.

1. How is Acetyl Chloride prepared? What are its properties? What its special value in the examination of Carbon compounds?

2. Discuss the constitution of Ethylene.

3. In what ways may Allyl Alcohol be derived from Glycerin? Give the properties of the Alcohol.

4. Explain by means of constitutional formulæ the relations between Mannite, Dextrose and Saccharic Acid.

5. What are Hydroxy-Acids? What general methods are available for their preparation?

6. Explain the constitution of the Xylenes. What bodies do they yield on oxydation?

7. Give the preparation and properties of Diazo-benzene Nitrate.

8 Explain the relationship of Anthraquinone and Alizarin to Anthracene.

9. What series of reactions shows that Mesitylene is Trimethyl-benzene?

10. Into what two classes are the Vegeto-alkaloids divisible? What are the general reagents employed in the detection of Alkaloids?

B. A. Sc. EXAMINATIONS (*Department of Chemistry*)

PRACTICAL CHEMISTRY.

WEDNESDAY, APRIL 4TH:—AFTERNOON, 2 TO 5.

Examiner,.....B. J. HARRINGTON, B.A., PH.D.

1. The alkaline Chlorides obtained in the analysis of 0.80 gram of a feldspar weighed 0.2082 gram; the Potassium Chloroplatinate weighed 0.50 gram. Calculate the percentages of K_2O and Na_2O.

2. In the determination of Nitrogen in an organic body by the Kjeldahl process, the quantity of material employed was 0.80 gram. The Ammonia evolved was absorbed in 100 c.c. of normal Sulphuric Acid, and the solution made up to 250 c.c. Of this solution 33.992 c.c. were required to neutralize 10 c.c. of normal Sodium Hydroxide solution. Calculate the percentage of Nitrogen in the body.

3. How may the calorific power of a fuel be estimated with Thompson's calorimiter? In a particular case where 2 grams of coal and 2000 grams of water were employed, the initial temperature of the water was 16° C. and the final temperature 22.8° C. Deduce the approximate calorific power of the coal.

4. Assuming that one gram of a sample of Manganese Dioxide sets free from Oxalic Acid (in presence of Sulphuric Acid) 0.654 gram of Carbon Dioxide, how much bleaching powder could be made from 500 kilos of the Oxide, regarding the composition of the bleaching powder as represented by the formula $Ca\ Cl_2\ O$?

5. How would you determine the quantity of Silver and Gold in a specimen of Tetrahedrite containing both these metals?

6. Describe the estimation of Zinc by means of a standard solution of Sodium Sulphide?

7. How are Chlorides, Nitrites and Nitrates estimated in Waters?

8. What are the principal precautions necessary in the quantitative separation of Calcium and Magnesium, Potassium and Sodium, Iron and Manganese?

9. How would you make an analysis of an alloy of Tin and Lead?

10. Describe the estimation of Theine in Tea.

11. 2.25 grams of the Platinum salt of an alkaloid yielded 0.553 gram of Platinum. Deduce the molecular weight of the alkaloid, taking 194.3 as the atomic weight of Platinum.

B.A. HONOURS IN NATURAL SCIENCE AND B.A. Sc.

(Chemistry and Mining Courses).

MINERALOGY.—(*First Paper*)

THURSDAY, DECEMBER 14TH :—MORNING, 9 TO 12.

Examiners,..... { B. J. HARRINGTON, B.A., PH.D.
F. D. ADAMS, M.A.Sc., PH.D.

1. Explain the following types of twinning:—(*a*) Carlsbad, (*b*) Baveno, (*c*) Manebach, (*d*) Periclin.

2. What are ordinary combinations of planes in crystals of the following species:—Topaz, Zircon, Pyroxene, Titanite, Garnet?

3. Discuss the chemical constitution of Tourmaline, Andalusite, Titanite, Spinel and Garnet.

4. Give the general characters of the Micas, and explain their division into two orders. What is Tschermak's view as to their chemical constitution?

5. What is the nature of the cleavage in each of the following species:—Albite, Topaz, Hornblende, Gypsum, Sphalerite, Galena, Stibnite?

6. Name and classify the minerals of the Pyroxene group. Briefly describe any two members of the group.

7. What are the general characters of the Zeolites? Name the principal members of the group, and describe two of them.

8. Give the blow-pipe characters of Molybdenite, Millerite, Malachite, Rutile, Cassiterite.

9. Give the chemical formula and crystalline form of Pyrargyrite Marcasite, Cerussite, Magnesite, Sodalite.

10. Explain carefully the notation of the faces in the Monoclinic System.

THIRD YEAR.

ELECTRICAL ENGINEERING.

WEDNESDAY, APRIL 11TH :—MORNING, 9 TO 1.

Examiner,..... C. A. CARUS-WILSON, M.A., M.INST.E.E.

1. Prove that the rate of doing work in a circuit, in horse power, equals $\frac{1}{746}$ (the current in amperes multiplied by the E. M. F. in volts.).

2. Design a rheostat of 10 steps and 10 resistance plates, so that when placed on a 100 volt circuit, it will draw 1, 2, 3.....10 ampères; the first step will put 10 plates in series, the second 9, and so on; find the resistance of each plate.

3. Write down the values you might expect to find for: The specific resistance of copper wire; the resistance of the coils of a Siemens dynamometer; the resistance, hot and cold, of a 50 C. P. Edison 100 volt. lamp; the resistance of a Weston ammeter, range 5 ampères; the current in a Weston voltmeter on a 100 volt. circuit; the current in a 150 volt. Cardew voltmeter.

4. Two voltmeters, each of 16,000 ohms, are connected in series to the + and — mains of a lighting circuit. Find what resistance must be placed in parallel with either voltmeter in order that the ratio of the readings may be 5.66.

5. Draw curves of magnetization for good average wrought iron and cast iron, writing down the values of β and μ for H = 10 . 25 . 50 . 100 . 200.

6. An iron ring of 45 cm. mean circumference is magnetized by a current of 14 ampères: μ being 300. Find the current required to maintain the same total lines in the circuit when an air gap of 2 m.m. is cut in the ring.

7. A magnetic yoke has 2,500 turns, length of test bar 30 cm., section 1.2 sq. cm. With a current of 5 ampères the permeability is observed to be 320: if the process of reversal occupies 0.02 second, find the E. M. F. in volts generated in a search coil of 20 turns.

8. Find the force of attraction in pounds, between two iron bars $1\frac{3}{8}$" diameter, the intensity of magnetization across the surface being 16×10^3 in. c.g.s. units.

9. Find the force in pounds, acting on a wire 5 in. long carrying a current of 7 ampères in a field of an intensity of 12×10^3 in e.g.s. units.

FOURTH YEAR.

ELECTRICAL ENGINEERING.

WEDNESDAY, APRIL 11TH:—MORNING, 9 to 1.

Examiner,..... .....C. A. CARUS-WILSON, M.A., M.INST. E.E

1. Prove that the expression $\frac{1}{8\pi}$ B H for the energy of a magnetized circuit holds only when μ is constant.

2. A voltmeter having 8,300 ohms resistance reads 112 volts when connected between the + and — mains of a lighting circuit; 62 when between + and earth; 21 when between — and earth. Find the insulation resistance.

3. If there are n sections in a gramme armature, show that the greatest fluctuation of E.M.F. in one revolution is given by the difference between

$$\text{cosec } \frac{\pi}{n} \text{ and } \cot \frac{\pi}{n}.$$

4. Find the percentage fluctuation of E.M.F. in an 8 coil brush armature.

5. Show that if in a dynamo, the length of the air gap = l cm.; the gap induction due to the magnets = H; the angle subtended by each pole piece = φ; the number of conductors outside the armature = c; and the total current = i; then $\frac{1}{2}\ ci = 576\ \frac{H\,l.}{\varphi}$

6. Prove the equation expressing the regulating power of a shunt motor. Show how to find the winding required to make a shunt motor self-regulating.

7. A shunt motor run without load on a 104 volt circuit makes 1,360 revolutions. Calculate the torque in inch pounds for a current of 86 ampères through the armature.

8. Criticize the statement that a series motor is more suitable for street car work than a shunt motor.

9. Two series motors are connected in parallel on a street car: after starting up it is observed that one begins to act as a generator. Explain this, discussing the whole question, and show the remedy.

FOURTH YEAR.

ELECTRICAL ENGINEERING.

FRIDAY, APRIL 13TH :—MORNING, 9 TO 12.

Examiner,.... .....C. A. CARUS-WILSON, M.A., M.INST.E.E.

1. A coil 85° ohms resistance when placed on a 100 volt alternating circuit draws ·4 ampere; find the volts necessary to get the same current when the coil is placed in series with a non-inductive resistance of 66 ohms.

2. Prove that the secondary current in a transformer, leakage being neglected, is the same as if the primary E. M. F. acted on a resistance $\frac{S_2}{S_1} R_1 \times \frac{S_1}{S_2} R_2$.

3. Prove that if an alternating E. M. F. of frequency n be impressed upon a circuit having resistance R and self-induction L, the current will lag behind the impressed E. M. F. by an angle $\theta = \tan^{-1} 2 \pi n \frac{L}{R}$.

4. Prove that the power in an alternating circuit is equal to the apparent watts multiplied by the angle of lag.

5. Find the current that will pass through a coil of wire of 1000 turns wound on a wooden bobbin 1.85 cm. diameter and 12 cm. long, when placed on an alternating circuit of 100 volts and of frequency 100. The resistance of the coil is 60 ohms.

6. Describe a simple arrangement for converting a direct current motor into a single phase alternating motor.

7. Prove the equation giving the current strength at any time t after connecting a circuit of time constant T to a constant E. M. F.

8. If V and C are the time constants of the shunt and series circuits in an alternating wattmeter, show that the correcting factor is $\frac{1 + 4 \pi^2 n^2 V^2}{1 + 4 \pi^2 n^2 V C}$, where n is the frequency.

9. Take four equidistant points on a circle to represent four poles of a Mordey alternator; show on the same circle eight equidistant armature coils and a curve representing the variation of E. M. F. in any one coil.

10. Show how it would be possible, by removing two coils and shifting the remaining six, to obtain three separate currents differing 120° in phase.

MINING.

THIRD YEAR MINING COURSE.

SATURDAY, APRIL 14TH :—9 TO 12 A.M.

Examiner,..... W. A. CARLYLE, Ma.E

1. What is a "vein?" a "bed?" Define "strike," "dip," "reverse fault," "Apex," "hade," "gangue," "stock-works." What would guide you in the search underground for that part of an ore-body displaced by faulting?

2. How would you conduct a prospecting trip in a new country? What indications of "mineral" would you look for? What is meant by "booming" in prospecting, and when is it applicable?

3. How would you endeavor to prove up, at not a great cost, the character and value of a supposed mining claim?

4. Define "shaft," "tail-rope," "slope," "winze," "chute," "incline," "hitch," "black-damp," "drift," "fire-damp," "cleat," "creep."

5. How would you mine out a vein 5-8 feet wide, dip 55° E, yielding an ore of good but not very high value in gold and silver? Show by sketches where you might run an incline, according to the varying conditions in the vein's size and direction, and also the system of timbering suited for such an incline. Show by sketch the arrangement of the station where a level leaves the incline.

6. Describe underground haulage (1) by tail-rope, (2) by endless rope system.

7. Show (1) a design for a gallows-frame, giving all dimensions, (2) and also by sketches the method of timbering a shaft, 4 x 7 feet in the clear, two compartments, by cribbing with sawed timber, explaining the best method of putting it in.

8. Name and describe briefly three methods of shaft sinking through wet, loose ground.

9. Name and describe the two methods by which an ore body may be worked out, giving sketches and the points of advantage in either case.

10. Name and describe the different forms of Cornish pump, giving sketches. How would you arrange such a pump in a shaft 1100 feet deep, and what would be the diam. and length of plungers, diam. of water column, and number of strokes per minute if the inflow of water is 1,500,000 gals. per day?

(Answer any nine questions, including No. 10.)

Faculty of Law.

FACULTY OF LAW.

MATRICULATION EXAMINATION.

SEPTEMBER 1ST, 1893:—4 P. M.

Examiners,.....PROFS. ARCHIBALD AND MCGOUN.

1. Translate into English:

> Interea magno misceri murmure pontum,
> Emissamque hiemem sensit Neptunus, et imis
> Stagna refusa vadis, graviter commotus; et alto
> Prospiciens, summa placidum caput extulit unda.
> At puer Ascanius, cui nunc cognomen Iulo
> Additur, Ilus erat, dum res stetit Ilia regno,
> Triginta magnos volvendis mensibus orbes
> Imperio explebit, regnumque ab sede Lavini
> Transferet, et longam multa vi muniet Albam.
>
> VIRGIL, AEN., BK. I.

(*a*) Explain the construction *cui nunc cognomen Iulo*. (*b*) Scan the first three lines.

2. Translate into French:

Cum ille, homo audacissimus, conscientia convictus, primo reticuisset, patefeci cetera: quid ea nocte *egisset*, quid in proximam constituisset? quem ad modum esset *ei* ratio totius belli descripta, edocui. Cum haesitaret cum teneretur, quaesivi quid dubitaret *proficisci* eo, quo iam pridem *parare*, cum arma, cum securis, cum fascis, cum aquilam illam argenteam cui etiam sacrarium *domi suae* fecerat, scirem esse praemissam.—IN CATILINAM, II. 3 and 13.

3. Translate into English: Pothier, Obligations 115.

Toutes personnes, même les enfants et les insensés, peuvent, par le quasi contrat qui résulte du fait d'un autre, être obligées envers lui, et l'obliger envers elles; car ce n'est pas le consentement qui forme ces obligations, et elles se contractent par le fait d'un autre, sans aucun fait de notre part. L'usage de la raison est à la vérité requis dans la personne dont le fait forme un quasi contrat; mais il n'est pas requis dans la personne par qui ou envers qui les obligations qui résultent de ce fait sont contractées.

4. Translate into French:

A person capable of contracting may, by his lawful and voluntary act, oblige himself toward another and sometimes oblige another toward him, without the intervention of any contract between them.

ARITHMETIC AND ALGEBRA.

5. A property having been sold for $1,400, the price has to be divided after payment of $87 costs, among three creditors having claims of $1,700 $200 and $33.20. How much does each get?

6. What capital will amount in three years to $5,000 at 6 per cent. interest, interest being (*a*) simple, (*b*) compound.

GEOMETRY.

7. To describe a parallelogram which shall be equal to a given triangle and have an angle equal to a given angle.

8. When the square on one side of a triangle is equal to the squares on the other two sides, prove that the triangle is right-angled.

Show also that the triangle is obtuse-angled if the square on one side is greater than the squares on the other two sides.

LOGIC AND ETHICS.

9. (*a*) Explain the causes and logical effects of ambiguity of terms. (*b*) Explain how "The Extension of terms is decreased as their Intension is increased."

10. (*a*) Distinguish Immediate from Mediate Inference, and state the object of conversion.

(*b*) If the proposition "All good men are sincere" is true, show, by *any* logical process, what other propositions may be legitimately obtained from it, (1) as true, (2) as false.

11. What is the field of the Science of Ethics?

12. State and illustrate the characteristic by which moral actions are differentiated from actions that are non-moral.

OBLIGATIONS.

FIRST AND SECOND YEARS.

SATURDAY, 25TH NOVEMBER, 1893:—3 TO 5.30 P.M.

Examiner,.....N. W. TRENHOLME, D.C.L.

1. Define and classify law and its sources, and the subjects with which it deals.

2. Define and classify obligations, and give the requirements of a valid obligation of each class.

3. Describe the different kinds of contracts in our Code: give the classification of contracts in the Institutes and that based chronologically on the growth of the law of contract in Roman Law.

4. Classify and point out the effects of the different kinds of incapacity to contract in our law.

5. Explain the different vices that may occur in contracts, and when, by whom and with what effect they may be invoked?

6. When may creditors exercise the rights of their debtors, and describe the remedy they may exercise against contracts entered into by their debtors in fraud of their rights and under what conditions. On what principle are the above remedies of creditors based?

7. What is default, and when and how may a debtor be or be placed in default, and what remedies may be ordinarily exercised against a debtor in default?

8. Give the leading rules respecting the measure of damages to which a debtor is liable in our law? What was held in Hadey & Bunendale?

9. Point out various differences that exist between obligations *ex delicto* and *quasi ex delicto*, and obligations *ex contractu*, as regards their nature, capacity to incur them, extent and nature of responsibility and the persons affected by them.

10. Point out and account for the difference in the position occupied by the law of *torts* in ancient and in modern systems of law.

11. What is subrogation: what compensation: and how may they take place?

12. Explain the different ways in which obligations may be extinguished.

13. What is the law of contract by correspondence? Does the English law differ from ours on this subject? Does it, as regards an offer made with a time fixed for acceptance or as regards an agreement to reduce the contract to writing, or as to damages for loss of future profits, or as regards contributory negligence?

14. Give some account of the provisions of Lord Campbell's Act incorporated into our Code. What was held in Robinson and the C.P.R., and on what principle were English decisions invoked as authorities in that case?

15. Explain *translatio actionis activa et passiva*, and the difference in the extent to which it takes place in our law compared with Roman Law, and the reasons therefor?

16. What is evidence: what are its different kinds? Whence do we derive our law of evidence? Give the leading rules governing the adduction and admissibility of evidence and the proof of obligations in our law?

N.B.—The First year will answer questions 1 to 9 inclusive, the Second year questions 7 to 16 inclusive.

ROMAN LAW.

FIRST YEAR.

THURSDAY, DEC. 14TH, 1893:—2 TO 4 P.M.

Examiner, ... N. W. TRENHOLME, D.C.L.

1. Write briefly on the value of the study of Roman law.

2. How would you treat the subject of the history of Roman law, and where do you find the sources of our knowledge of Roman law and its history?

3. Describe the original Roman Constitution, and also the Reformed or Servian Constitution. What natural transition does the latter mark in the growth of States?

4. Give some of the principal events that mark the first half of the Republic, and state the character of that period in Roman History.

5. Indicate the importance of the XII Tables in the history of law, and explain the different agencies for the amelioration of the law after it has once been codified, and the order and mode of their operation.

6. Give some account of the different attempts at codification in Roman law, and specially of the compilations of Justinian, their nature and contents.

7. What were the Leges Sacrae: Comitia Curiata: Comitia Centuriata: Comitia Tributa: Responsa Prudentium: Ius Honorarium: Lex Hortensia: Licinian Rogations?

ROMAN LAW.

THURSDAY, 14TH DECEMBER, 1893:—4 TO 6.30 P.M.

Examiner, ... N. W. TRENHOLME, D.C.L.

1. Omnium autem obligationum summa divisio in duo genera deducitur: namque aut civiles sunt, aut praetoriae. Civiles sunt quae aut legibus constitutae, aut certo iure civili comprobatae sunt. Praetoriae sunt quas praetor ex sua iurisdictione constituit, quae etiam honorariae vocantur.

Sequens divisio in quatuor species deducitur. Aut enim ex contractu sunt, aut quasi ex contractu, aut ex maleficio, aut quasi ex maleficio. Prius est ut de iis quae ex contractu sunt despiciamus. Harum aeque quatuor sunt species. Aut enim re contrahuntur, aut verbis, aut litteris, aut consensu.

Translate the foregoing, and state what objections, if any, there are to the classifications contained therein. Give a better classification, if you can, with your reasons therefor?

2. Quibus modis re contrahitur obligatio?

Answer this fully, and describe the actions connected therewith.

Give the position and importance historically of the provisions of the edict: Nautae, caupones, stabularii, etc., and the leading features of our law on the corresponding subject?

3. Translate and explain fully the import of the following: Cum autem emptio et venditio contracta sit (quod effici diximus simul atque de pretio convenerit, cum sine scriptura res agatur) periculum rei venditae statim ad emptorem pertinet, tametsi adhuc ea resemptori tradita non sit.

With what modification, if any, must this statement as to periculum be taken? What difference, if any, between the Roman Law and our law on the points referred to in this passage, and as to the effect of contract alone in sale?

4. Nulla emptio sine pretio esse potest. Item pretium in numerata pecunia consistere debet. Why is this the case, and what difference, if any, in the position and rights and obligations of parties if the consideration were not money but some other thing?

Is our law the same?

5. What principle of Roman Law was an obstacle to the existence of a true law of agency, and what means were adopted to overcome this obstacle and form such a law of agency in virtue of which the real principals could avail themselves of and sue and be sued on the contracts and acts of their mandataries. Introduce in this connection the following: Servus ex persona domini jus stipulandi habet; acquiritur nobis non solum per nosmetipsos sed etiam per eos quos in potestate habemus; actiones, quod iussu, exercitoriae, institoriae, mandati directae et contrariae, actiones utiles.

6. What principle of Roman Law was an obstacle to the cession or transfer of debts and rights, and give the means adopted to overcome it?

What was the Lex Anastasiana, and have we anything like it, and what?

7. Classify partnerships in Roman Law and in our law. Indicate some of the principal differences in the rights and obligations of partners *inter se* and towards third parties under different kinds of partnership in our Code. State the leading rules by which the powers of partners are determined?

8. Societas dissolvitur ex personis; ex rebus; ex voluntate; ex actione; ex tempore. Explain each of these and the consequences of dissolution thereby as regards the partners and also as regards third persons, and the effect on the property of the partnership.

9. What were the principal obligations ex delicto in Roman Law and what the Lex Aquilia; and how did the Roman Law of delict and quasi delict differ from ours: 1. As regards the nature of the acts that fell under each of these classes; and 2, As regards the nature of the remedy given to the person wronged or injured?

10. Describe in chronological order and give your appreciation of the different systems of civil procedure that prevailed in Roman Law, including execution of judgments.

Maine speaks of the Actio Sacramenti as a dramatization of the origin of justice. Point out the truth of this.

11. Give some account of the tribunals and judicial organization by which justice was administered in Roman Law at different epochs at Rome, in Italy and in the Provinces. Indicate some of the principal causes and agencies that tended to uniformity of law and of its administration throughout the Empire.

In connection with the foregoing question explain the following: ius Italicum; Municipia; Coloniae; Praefecturae; proconsul; propraetor; conventus; praeses; iudices pedanei; consilium vel auditorium principis; provocatio; decreta; praefectus urbi; praefectus praetorio.

N.B.—Students of the Third Year will omit questions 4, 6 and 11; students of the Second Year will omit questions 5, 9 and 10.

ROMAN LAW.

SATURDAY, 10TH MARCH, 1894:—3 TO 6 P.M.

Examiner,.....N. W. TRENHOLME, D.C.L.

1. Give some account of three leading systems of property known in the history of that subject; and point out distinguishing features in property in the present day.

2. Translate and explain: "res vel in nostro patrimonio sunt, vel extra nostrum patrimonium habentur."

"Singulorum autem hominum multis modis res fiunt. Quarumdam enim rerum dominium nanciscimur iure naturali, quod, sicut diximus, oppellatur ius gentium: quarumdam iure civili."

Give the different classes of "res" and modes of acquisition above referred to, with a particular account of "occupatio" and "accessio." Explain generally the dual character of Roman legal institutions and its importance and influence in Roman Law, particularly in property and successions.

3. What were the rights and remedies of the *possessor* in Roman Law under the different kinds of possession? What corresponding remedies, if any, exist in our law, and under what conditions can they be exercised? What great reforms did Justinian effect in the law of property and usucapion and prescription?

4. Describe the principal modes of acquisition per universitatem in Roman Law, with a particular account, in order, of the different kinds of Roman Wills, their nature and requirements, and their connection with modern wills. Explain: Testamentifactio: Institutio he redis: substitutio pupillaris, exemplaris; exheredatis, nominatim, interceteros: querela inofficiosi testamenti, portio legitima, Lex Falcidia: legata, per vindicationem, per damnationem.

5. "De heredum qualitate et differentia." Explain the law on this subject, giving the different classes of testamentary heirs, their position, rights modes of acquiring, and an account of the important beneficia they came to enjoy and the reasons therefor.

6. De fideicommissis: de codicillis. Give some account of these, their rise and importance. Explain: clausula codicillaris: Scta Tertullianum, Pegasianum; fideicommittens, fideicommissarius, fiduciarius: fideicommissa hereditatum.

7. Describe the Roman Law of abintestate succession at different epochs. Explain: "Ius bonorum possessionis introductum est a praetore, emendandi veteris iuris gratia." Also: "Aliquando tamen neque emendandi neque impugnandi veteris juris, sed magis confirmandi gratia pollicetur bonorum possessionem."

Point out what the praetor did, and the different kinds and orders of possessors which he created.

What were the Scta Tertullianum and Orphitianum? What the order of succession established by Justinian, and how did it differ from our law?

8. Give Maine's views on the Roman doctrine of occupatio and its influence; and on origin of individual ownership; the origin of primogeniture; res mancipi and nec mancipi, and importance of such divisions.

N.B.—The 3rd year will answer all 8 questions; the 1st and 2nd years will answer the first 6.

MERCHANT SHIPPING.

TUESDAY, 17TH APRIL, 1894:—4 TO 6.30 P.M.

Examiner.....N. W. TRENHOLME, Q.C., D.C.L.

1. What are the sources of our law respecting merchant shipping and the different contracts connected therewith?

2. What is a British ship, and what vessels are subject to registration in order to enjoy the privileges of a British ship in Canada? Under what laws and how are ships registered, and what are the consequences of failure to register?

3. How may a ship be mortgaged, and what are the rights and position of the mortgagee? What is the difference between mortgage and hypothecation, and how and by whom may the latter be effected?

What was held in Kelly and Hamilton; D'Aoust and McDonald; Kempt and Smith?

4. What are the rights and position of part owners, and how do they differ from those of partners or of ordinary joint owners of property in our law?

5. What are some of the statutory limitations as regards the liability of owners and of carriers by water, in respect of the acts and amount for which they are liable?

6. What are the ordinary and what the extraordinary powers of the master?

7. Explain, affreightment; charter party; bill of lading; primage; general average; respondentia; ship's husband; exercitor navis.

8. By what law is the responsibility of owners for loss caused by the acts of the master and crew governed? What was held in Guibert and Lloyd; in Moore and Harris?

LAW OF REAL ESTATE.

THURSDAY, 22ND MARCH:—4.30 TO 6.30 P.M.

SERVITUDES.

Examiner.....PROF. WURTELE, D.C.L.

1. Define a servitude.

2. What kind of a right is a servitude?

3 Are servitudes divisible?

4. Give the classification of servitudes.

5. What are the rights of the owners of river-side property in navigable or floatable rivers?

6. In the country, what are the rights of neighbors with respect to fences and ditches?

7. What is clearance, and what are the obligations of neighbors respecting trees growing near their line of separation?

8. What obligation respecting roofs is imposed on owners as regards their neighbors?

9. How are servitudes resulting from the act of man established?

10. Describe the difference between a servitude on a property and a personal right to do the same thing on a property.

11. Who is bound to do the work necessary for the exercise of a servitude?

12. How are servitudes extinguished?

SALES.

THURSDAY, 19TH APRIL.

Examiner,.....PROF. ARCHIBALD.

1. Distinguish between the definition of sale as given in the Code and that given by Pothier. Give some of the principal changes in the law of sale resulting from the change in the definition of the contract.

2. What is delivery, and how is it effected?

3. What are the rights of a buyer when evicted from the property purchased?

4. What would be the effect of a material variance between the bought and sold notes in a commercial sale by a broker?

5. What is meant by the phrase, "*accepted or received part of the goods*," found in Art. 1235 C.C., sub-sec. 4.

6. A buys 1000 tons of iron from B "at the price of $30 per ton, which is to be delivered on or before the 31st December, 1893. A has already resold the iron for $40 per ton, deliverable in January, 1894. B fails to deliver the iron within the time limited:—

Has A an action of damages against B; if so for how much; if not what conditions would be necessary to give such right of action?

FIRST AND SECOND YEARS.

30TH JANUARY, 1894.

COMMERCIAL LAW—BILLS—NOTES—CHEQUES.

Examiner,..... PROF. L. H. DAVIDSON, D.C.L., Q.C.

1. Explain the terms, Drawer, Drawee; Maker; Payee; Endorser; Endorser *pour aval*: Acceptor; Referee in case of need, as applied to Bills, Notes and Cheques.

2. What is meant by the terms "negotiable," "negotiable security," as applied to these instruments? and distinguish between a negotiable and non-negotiable Bill under the Act of 1890. When is a Bill "negotiated" under the Act?

3. Explain the position and obligation (1) of the several parties to an ordinary Bill of Exchange with one endorser before and after acceptance and after maturity; (2) the parties to a note with three endorsers, the second of whom endorses *sans recours*: the instrument in each case being held by one whose name is not upon it.

4. What is meant by a "general," "qualified," or partial acceptance under the Act. Illustrate each.

5. What are the requisites of an endorsement of a Bill or Note so as to operate as a "negotiation"?

6. What is meant by "a transferrer by delivery," and what are his obligations? When may a bill, note or cheque be so transferred?

7. Distinguish between a protest for "non-acceptance" and for "non-payment," and explain when such steps are necessary under the Act.

8. What is the duty and obligation of a Bank as to its customers' cheques drawn upon it?

EXAMINATION ON OBLIGATIONS AND CONTRACTS.

FRIDAY, DEC. 15TH, 1893:—4 TO 6 P.M.

Examiner, ...PROF. GEOFFRION.

1. What is the distinction between obligations and contracts?

2. Can you give any reason why drunkenness is not an excuse for criminal or even civil offences, and is a cause of nullity of contracts?

3. Give your views on the incapacity resulting from civil death; is the incapacity the same in all cases?

4. Can a contract made by a married woman without the authorization of her husband be ratified by the latter? If it can, what is the effect of such a ratification?

5. Is there a distinction to make between *force* and *violence* as affecting the existence of a contract; would a contract signed by force be governed by article 1000?

6. Give your interpretation of article 992, and say whether it include error of law as well as error of fact.

7. Explain and conciliate articles 994 and 999.

8. Explain the nature of the actions granted to the creditors by articles 1031 and 1032: can both actions be exercised at the same time, or one after the other?

9. Your opinion is asked on the following questions:

A, who was of age, married B, a minor; there was a marriage contract to which the father of B, then alive, was not called to intervene. B had inherited from her deceased mother, and was possessed of $10,000; the future husband had nothing. Separation as to property was stipulated.

A was prosperous and successful in his affairs, and died leaving an estate of $100,000. Can B ask to be relieved from the stipulation of separation as to property for lesion or for any other reason?

HISTORY OF LAW—FRENCH PERIOD.

TUESDAY, DEC. 12TH:—4 TO 6 P.M.

Examiner,.....PROFESSOR MCGOUN.

1. Give an account of the voyages and administration of Samuel de Champlain.

2. During what period did Maisonneuve hold the governorship of Montreal, and what was his relation to the Governor of Quebec?

3. To whom was the seigniory of Montreal granted by the Company of One Hundred Associates?

4. What events led to the dissolution of the Company of One Hundred Associates, and by what régime was its government succeeded?

5. What was the main body of civil law introduced into Canada as the fundamental law of the land? And during what period was this the principal embodiment of our civil law?

6. Define the relations of Roman, Customary and Canon law in France before the Code Napoleon was formed.

7. When were the customs of France reduced to writing? Give an account of one of the great commentators on the Custom of Paris.

8. Give some of the chief writings of Pothier, and note his special importance in relation to Lower Canada law.

9. What was the Ordinance of 1667? Mention some leading commentator upon it.

10. What was d'Aguesseau?

11 What were some of the functions of the Intendant of Justice in Canada?

12. What was the last change in the composition of the Sovereign Council, and when was it made?

CIVIL PROCEDURE.

SATURDAY, MARCH 17TH:—AFTERNOON, 2 TO 5.

Examiner, ... PROFESSOR FORTIN.

1. Before what tribunal are brought:
   (*a*) Personal actions?
   (*b*) Real and mixed actions?
   (*c*) Actions in separation between consorts?
   (*d*) In damages against public officers?
   (*e*) In matters of succession?
   (*f*) In warranty and in continuation of suit?

2. How is the judgment enforced, and what pleas may be opposed to the same:
   (*a*) If obtained in a foreign country?
   (*b*) If obtained in another province of the Dominion?

3. How is a partnership summoned? A joint stock company? A corporation? A person residing in a foreign country? In another province?

4. Describe the different pleas that may be opposed to an action. When and by whom can a demurrer be pleaded?

5. What is an incidental demand? By whom can it be made and upon what grounds? How is it made?

6. What actions may be tried by a jury? What is the province of the jury? How is judgment obtained upon a verdict? What are the remedies against a verdict?

7. What actions may be brought as summary matters? What is the difference between ordinary and summary procedure?

8. What is a possessory action? How many kinds are there, and what is the object of each? What is the prescription of such actions?

9. Who can demand confirmation of title? Who cannot? How is the demand made? What is its effect?

10. What persons must be summoned in an action *en partage*? *Quid* if there be minors having adverse interests?

When does licitation take place? What is its effect?

11. Give the essential formalities of an action of separation as to property? What is essential to give effect to the judgment?

12. What is a petition of right? How is it brought and before what tribunal?

N.B.—Second and Third Years' Students are not called upon to answer the first five questions.

NOTARIAL LAW AND PROCEDURE.

Examiner.....PROF. MARLER, B.A., B.C.L.

1. State generally and fully:—What is a Hypothec? What it secures? Over what it extends?

2. What is meant by a legal Hypothec? State the various kinds of legal Hypothec, what they respectively secure, and how they are preserved?

3. Before the Registry ordinance, how were conventional Hypothecs created, and what changes were introduced by that ordinance?

4. What are the essentials for the validity of a conventional Hypothec?

5. What is the effect of a Hypothec granted upon an undivided portion of an immoveable by a part owner? Explain fully and give your reasons.

6. What are the privileges against immoveables? Which of them are exempt from the formality of Registration?

7. What delays, if any, are granted to Vendor and Purchaser to register the deed of Sale? Explain fully.

8. A sells to B an immoveable for $5,000, whereof B pays $2,000 cash, and promises to pay the balance of $3,000 in a year. B grants a Hypothec

upon the immoveable in favor of C for $1,000 which is registered before B's deed of acquisition is registered. State the relative rank of A's claim and C's Hypothec.

9. B grants a Hypothec to C on 1st April, 1894; to D on 5th April, 1894; to F on the 6th April, 1894. The deeds creating these Hypothecs are sent to the Registry Office for registration, and arrive at the same time. How do they rank?

10. A sells an immoveable to B, and subsequently he sells the same immoveable to C. Which of them is the owner?

11. What is meant by the indivisibility of a Hypothec? Can the Hypothec be divided?

12. State any exception to the rule that the registered owner is the reputed owner, as regards a sale made by him?

CIVIL LAW.

WEDNESDAY, 18TH APRIL, 1894:—4 TO 6 P.M.

Examiner,.....PROFESSOR DOHERTY, D.C.L.

1. What are the essentials of the contract of gift *inter vivos*?

2. Mention the principal modifications of the law respecting gifts *inter vivos*, which were introduced by the codifiers, as consequences of the law establishing freedom of willing, or for the purpose of assimilating the law as regards gifts *inter vivos*, to that governing wills in virtue of the Statutes establishing such freedom.

3. What persons are incapable of disposing of property by gift *inter vivos*? What persons are incapable of receiving?

4. What are the essential formalities of the contract of gift?

In what cases is the registration of gifts necessary? By whom can their non-registration be invoked?

5. By whom, to whom, and how can gifts of future property be validly made? To what extent are such donations irrevocable?

6. What do you understand by (*a*) a universal legacy: (*b*) a legacy by general title: (*c*) a particular legacy? To what extent are the universal legatee, the legatee by general title, and the particular legatee respectively liable for the debts of the testator?

7. What do you understand by the right of accretion? When does it take place?

8. What is the effect of the bequest of a thing which does not belong to the testator? In what respects, if any, does our present law upon the subject differ from that anterior to the Code? In what respects, if any, does it differ from the dispositions of the Code Napoléon?

9. At what period must the capacity of disposing by will exist on the testator's part? At what period must the legatee be capable of receiving?

RAILWAY LAW.

FRIDAY, APRIL 20TH:—AFTERNOON, 3 TO 5.

Examiner, ... PROF. HARRY ABBOTT, Q.C., B.C.L.

1. What Railway Companies are subject to the jurisdiction of the Dominion Parliament; and what to that of the Legislature of the Province of Quebec? Distinguish between Companies which are wholly or partially subject to the provisions of the Dominion Railway Act.

2. What are the general powers of Railway Companies under the Railway Act?

3. What extent of land may be taken by a Railway Company *in invitum* and what is the procedure to be followed in expropriating such lands?

4. State the principles which should govern arbitrators in assessing the compensation to be given to persons expropriated by a Railway Company, and especially as to the nature and extent of the damages to be awarded.

5. Under what circumstances would a person whose property is injured by the smoke, noise, dust or vibration of passing trains, be entitled to recover compensation from the Railway Company, and in what manner?

6. Give instances of what would, and what would not constitute a case of undue preference by a Railway Company, in the rate of tolls, in favor of any person or any description of traffic.

7. In what cases are Railway Companies liable, and in what cases are they not liable, for animals killed or injured by their trains?

8. Explain the liability of Railway Companies as common carriers of (*a*) goods, (*b*) passengers, (c) passengers' baggage.

9. In what manner and to what extent may Railway Companies limit their liability as carriers of goods? Give an illustration.

10. If a person not in the Company's employ is riding on a freight train and is injured in a collision caused by the negligence of the Railway Company's servants, could he recover? and if so, under what circumstances?

LAW OF PERSONS.

FIRST YEAR.

WEDNESDAY, 13th DECEMBER :—AFTERNOON, 4 to 6.

Examiner,.....EUGÈNE LAFLEUR, B.A., B.C.L.

1. What are the conditions required for the naturalization of aliens, and before what Court in the Province of Quebec must the application be made ?

2. What are the principal effects of civil death ?

3. How is the rectification of acts of civil status obtained and carried out ?

4. Define domicile, distinguishing it from residence. How is a domicile of choice acquired ?

5. A, a domiciled Englishman, marries B, domiciled in the Province of Quebec, without ante-nuptial contract, the marriage being celebrated in New York. After the ceremony, the consorts return to England, but subsequently take up their permanent abode in the Province of Quebec, and retain their new domicile until the death of the husband.

(*a*) Can the wife claim community of property ?

(*b*) Can she claim dower on immoveables in the Province of Quebec ?

6. (*a*) Under what circumstances are the heirs of an absentee allowed to take provisional possession of his estate ?

(*b*) What are the duties of persons to whom such provisional possession is granted ?

(*c*) When does such possession become absolute ?

(*d*) What is the effect of the re-appearance of the absentee after the heirs have obtained absolute possession ?

7. Enumerate the various grounds for which marriage may be annulled, distinguishing between absolute and relative nullities.

8. What are the rights of a wife during the pendency of an action for separation from bed and board with respect to :

(*a*) the care of the children,

(*b*) her residence,

(*c*) an alimentary pension,

(*d*) the preservation of the share which she will have a right to claim when a partition takes place ?

9. What persons are excluded from tutorship ?

10. What restrictions are placed on the powers of persons provided with judicial advisers ?

LAW OF PERSONS.

SECOND AND THIRD YEARS.

WEDNESDAY, 13TH DECEMBER :—AFTERNOON, 4 TO 6.

Examiner, ... EUGÈNE LAFLEUR, B.A., B.C.L.

1. W, whose father is a British subject, was born and has always lived in a foreign State, under the laws of which he became at the time of his birth a subject of that State. A war having broken out between Great Britain and this foreign State, W is found in arms on the side of the latter.

(*a*) Would W be liable to be put to death as a traitor if tried before a British tribunal?

(*b*) What remedy does the Canadian Naturalization Act furnish for persons likely to find themselves in such a predicament, and what are the territorial limitations of this remedial legislation?

2. M, a foreigner, has obtained a certificate of naturalization in Canada, and subsequently returns to the country of which he was formerly a subject, and under the laws of which he has not ceased to be a subject thereof in spite of his naturalization in Canada. M is drafted into the army, and takes part in several engagements against British troops within the territory of the foreign State.

Would M be deemed to be a British subject during these hostilities if the question of his citizenship were to be decided by a Canadian tribunal?

3. Enumerate the principal disabilities of persons civilly dead.

4. (*a*) Can a married woman, not separated from bed and board, ever have a domicile other than that of her husband?

(*b*) What is the legal domicile of a minor who has a tutor other than his father or mother?

5. What is the effect of the domicile of the consorts upon:

(*a*) The formal validity of the marriage;

(*b*) Their capacity to marry;

(*c*) Their proprietary rights in moveable or immoveable property in the absence of an ante-nuptial contract;

(*d*) The formal validity of the ante-nuptial contract;

(*e*) The wife's capacity to contract obligations during the marriage;

(*f*) The authority of the husband over the wife;

(*g*) Jurisdiction in applications for divorce or separation from bed and board?

6. Enumerate the various grounds upon which a marriage may be annulled, distinguishing between absolute and relative causes of nullity.

7. What legal means of compulsion may a husband employ against a wife who deserts the conjugal domicile?

8. In what cases is a wife absolved from the obligation of residing with her husband?

9. A wife not judicially separated as to bed and board, but living apart from her husband by mutual consent, obtains from a judge an authorization to sell some real estate forming part of her private property. This authorization is obtained while the husband is residing abroad, and, although his address is known to the wife, no attempt is made to obtain his consent to the sale. Is this authorization valid, and would the purchaser obtain a valid title to the real estate?

10. (*a*) What is the value of admissions made by the parties in their pleadings in actions for separation from bed and board?

(*b*) Can the testimony of the parties be taken in such actions, and if so, under what restrictions?

(*c*) Could the acquiescence of one of the parties in a judgment of separation be invoked as a ground for obtaining the dismissal of an appeal from such judgment?

11. (*a*) Article 249 of the Civil Code states that all tutorships are dative. Is there any exception to this rule in our law?

(*b*) Distinguish between the functions of the subrogate tutor and those of the tutor *ad hoc*, and cite leading cases as to the limitation of the powers of the latter.

12. How is a minor emancipated, and what are the effects of emancipation on his status and capacity?

Preliminary Subjects.

(In the order given in the Regulations.)

EXAMINATION PAPERS.

I. PRELIMINARY SUBJECTS.

WRITING.

WEDNESDAY, JUNE 6TH :—MORNING, 11.15 TO 11.30.

Examiner,.....G. W. PARMELEE, B.A.

(1). Write :—

The Christmas and New Year observances are not unlike those in other Northern countries; but the Norwegians have a peculiar and beautiful Christmas custom, which is universal amongst them, of hanging out small sheaves of corn for the birds.

(2). Write all the letters of the alphabet in capitals.

(3). Give your post-office address, and the name of your school.

DICTATION.

FRIDAY, JUNE 1ST :—MORNING, 10.30 TO 11.30.

It was a little dell where they had seated themselves, with a leaf-strewn bank rising gently on either side, and a brook flowing through the midst, over a bed of fallen and drowned leaves. The trees impending over it had flung down great branches, from time to time, which choked up the current, and compelled it to form eddies and black depths at some points; while in its swifter and livelier passages, there appeared a channel-way of pebbles, and brown, sparkling sand. Letting the eyes follow along the course of the stream, they could catch the reflected light from its water, at some short distance within the forest, but soon lost all traces of it amid the bewilderment of tree-trunks and underbrush, and here and there a huge rock covered over with gray lichens. All these giant trees and boulders of granite seemed intent on making a mystery of the course of this small brook; fearing, perhaps, that with its never-ceasing loquacity, it should whisper tales out of the heart of the old forest whence it flowed, or mirror its revelations on the smooth surface of a pool. Continually, indeed, as it stole onward, the streamlet kept up a babble.

kind, quiet, soothing, but melancholy like the voice of a young child that was spending its infancy without playfulness, and knew not how to be merry among sad acquaintance and events of sombre hue.

HAWTHORNE: *The Scarlet Letter.*

DICTATION (for the Examiner only).

Apprenez donc le prix du temps, employez-le avec une infatigable, avec une jalouse activité. Vous aurez beau faire, ces années qui se déroulent devant vous avec une perspective sans fin n'accompliront jamais qu'une faible partie des pensées de votre jeunesse; les autres demeureront des germes inutiles, sur lesquels le rapide été de la vie aura passé sans les faire éclore, et qui s'éteindront sans fruit dans les glaces de la vieillesse. Votre âge se trompe encore d'une autre façon sur la vie: il y rêve le bonheur, et ce qu'il y rêve n'y est pas.

JOUFFROY.

ENGLISH GRAMMAR.

FRIDAY, JUNE 1ST:—MORNING, 9 TO 12.30.

Examiners,.... .... { JOHN L. DAY, B.A.; P. T. LAFLEUR, M.A.; REV. PRINCIPAL ADAMS, LL.D.; REV. J. HEPBURN, M.A.; REV. R. HEWTON, M.A.; REV. M. O. SMITH, B.D.

(N.B.—Division I must be attempted by all. Answer *two* questions from Division II, and *one* from Division III.)

I.

1. Analysis:—

(*a*) "Is this a dagger which I see before me, the handle towards my hand?"

(*b*) He is not so clever as his brother.

(*c*) "Take heed lest ye fall into temptation."

(*d*) The man who neither reverences nobleness nor loves goodness is hateful.

2. Parse (write the words of the sentence under one another in column):—

Tell me whether this be true or not.

3. (*a*) Plural of:—alkali, analysis, beef, handful, Mrs., penny, teaspoonful, yolk. (*b*) feminine of:—friar, fox, abbott, stag, murderer, ram, boar,

hart, drone. (Write the words in column, and the answers to each in a corresponding column on the right.)

4. *Why* are the following sentences incorrect?

(*a*) Having finished the chapter, the volume was closed.

(*b*) Everybody has their faults.

(*c*) Somebody told me, I forget whom.

(*d*) He was one of the wisest men that has ever lived.

(*e*) More than one emperor prided himself in his skill as a swordsman.

II.

5. (*a*) Define:—infinitive mood, nominative absolute, reflective pronoun root, stem. (*b*) Short notes on:—methinks, ought, each, riches, three-*foot*-rule.

6. Adverbial adjuncts assume a variety of forms:—mention them.

7. State the various forms of the attributive adjunct.

III.

8. (*a*) The suffixes forming (1) abstract nouns, (2) denoting the agent or doer. (*b*) Under what circumstances is *shall* used instead of *will?*

9. Explain fully Grimm's Law.

ARITHMETIC.

MONDAY, JUNE 4TH:—MORNING, 9 TO 10.30.

Examiners,..... .... { REV. PRINCIPAL ADAMS, D.C.L. / H. M. TORY, B.A. / F. TOPP, B.A.

(Answer two questions from each of the three sections.)

SECTION I.

1. Find the value of $\frac{5\frac{1}{7} - 2\frac{1}{8}}{3\frac{3}{4} + \frac{9}{10}}$ of $\frac{4\frac{1}{2} + 5\frac{19}{25}}{4\frac{1}{20}}$ of $\frac{2\frac{4}{5} - 1\frac{2}{3}}{7\frac{19}{24} - 2\frac{1}{4}}$

2. Simplify $\frac{2.8 \text{ of } 2.\dot{2}\dot{7}}{1.136} + \frac{4.\dot{4} - 2.8\dot{3}}{1.6\dot{7} + \dot{2}.629}$ of $\frac{6.8 \text{ of } 3}{2.25}$

3. The fore-wheel of a carriage was 11 feet in circumference and the hind one 13 feet. There being 5280 feet in a mile, how many miles had the carriage gone when the same spots which were on the ground at the time of starting had been on the ground 360 times at the same instant.

SECTION II.

4. *A* and *B* enter into partnership and gain $4450.50. The capital of *A* is 15 per cent. more than that of *B*. What is each man's share of the profits?

5. An agent charging 4 per cent. commission for collecting, collects 85 per cent. of a bill of $550, what does he pay his principal?

6. What is the discount on $3024, one half payable in 6 months and the remainder in 12 months, the rate being 7 per cent. per annum, simple interest.

SECTION III.

7. How many principal units are there in the metric system? Name them. On which one do the others depend? Reduce 3 fur. 135 yds. 4 in. to centimetres.

8. A gallon is equal to 4.543 litres. How many cubic centimetres are contained in one pint

9. What is the cost of papering the walls of a room 15 ft. long, 12 ft. wide and 10 ft. high, with paper 5/6 of a yard wide, at 12½ cents per yard?

GEOGRAPHY.

WEDNESDAY, JUNE 6TH :—MORNING, 9 TO 10.

Examiners..... .... { REV. R. HEWTON, M.A.; P. T. LAFLEUR, M.A.; REV. PRINCIPAL ADAMS, LL.D.; JOHN L. DAY, B.A.; REV. J. HEPBURN, M.A.; REV. M. O. SMITH, B.D.

I.

N. B. Answer *two* questions only from this division.

1. A ship, laden with cutlery, tin, copper, and woolen and cotton goods, leaves Liverpool, England, to sail round the world, and exchanges her cargo at a chief port on each of the continents.

Briefly describe the route, government, climate, and inhabitants of each city or port visited, and state the cargo carried by the ship on each voyage.

2. Explain (1) Rotation, (2) Revolution, (3) Planet, (4) Comet, (5 Tributary, (6) Estuary, (7) Zodiac, (8) Ecliptic, (9) Tropics, (10) Zone.

3. What are the chief characteristics of North America?

II.

N. B. Answer *two* questions only from this division.

4. Draw an outline map of the St. Lawrence River, showing its three chief Tributaries on the North and two on the South. Show the position of two cities on the St. Lawrence, and one city or town on each Tributary.

5. Write notes on Asia under the following heads:—(1) History, (2) Physical Features, (3) Inhabitants, (4) Climate, (5) Religion.

6. Name the principal (1) Rivers, (2) Countries, (3) Seas, (4) Gulfs, (5) Powers, of Europe.

III.

N. B. Answer *one* question only from this divison.

7. Explain the apparent gain or loss of time in travelling East or West.

8. Account for the change of seasons.

9. What is the most direct route to Melbourne, Australia?

BRITISH AND CANADIAN HISTORY.

Monday, June 4th:—Morning, 10.30 to 12.

Examiners,..... { P. T. Lafleur, M.A.; Rev. Principal Adams, LL.D.; John L. Day, B.A.; Rev. J. Hepburn, M.A.; Rev. R. Hewton, M.A.; Rev. M. O. Smith, B.D.

(N.B.—Candidates may answer any *two* questions, but not more than two, from *each* of the following divisions.)

I.

1. Who were Champlain, Frontenac, Sir Isaac Brock, Lord Durham? Give dates.

2. Explain briefly, with dates:—Company of Merchants, Constitutional act, Clergy Reserves, Ashburton Treaty.

3. Give some account of the present system of Canadian Confederation; name the act of parliament by which it was established, and give its date.

II.

4. Name, with their dates, four important events in the history of Canada since 1880, and give an account of any *one*.

5. Write short notes, with dates, on the following:—The Great Charter, Trial of Charles the First, Habeas Corpus Act, Great Reform Bill.

6. What were the chief causes of the Hundred Years War? Give the names of *two* leaders on both sides.

III.

7. Give some idea of the condition of England in the reign of Queen Anne, (*a*) as regards domestic life, (*b*) as regards means of communication among different parts of the kingdom.

8. Write a short account, with dates, of each of the following: Thomas à Becket, Marlborough, Nelson.

9. Give in outline a description of the system of government that prevails in England at the present day.

NEW TESTAMENT HISTORY.

WEDNESDAY, JUNE 6TH:—MORNING, 10 TO 11.

Examiners,.....{REV. M. O. SMITH, B.D.
P. T. LAFLEUR, M.A.
REV. PRINCIPAL ADAMS, LL.D.
JOHN L. DAY, B.A.
REV. J. HEPBURN, M.A.
REV. R. HEWTON, M.A.

(N.B. Candidates may answer *two* questions, but not more, from each of he divisions I., II., and III.

I.

1. State briefly what you know concerning: (*a*) the Passover. (*b*) The Feast of Pentecost.

2. Write short notes upon: (*a*) The Pharisees. (*b*) The Sadducees.

3. Mention any events connected with: (*a*) Herod the Great. (*b*) Herod Antipas. (*c*) Herod Agrippa I. (*d*) Herod Agrippa II. What was the relationship of each of these men to Herod the Great?

II.

4. Name the original twelve Apostles, and also any others who are spoken of as Apostles in the Acts.

5. Describe the Triumphal Entry of our Lord into Jerusalem at the close of His last journey to that city.

6. Mention the more important instances of the appearing of our Lord to His disciples after His Resurrection.

III.

7. Describe briefly the conversion of Cornelius.

8. How many missionary journeys were undertaken by St. Paul? What was the extent of each? and what city formed the starting point for each of them?

9. Trace briefly the course of St. Paul's journey as a prisoner from Caesarea to Rome.

Optional Subjects.

(In Order of the Regulations.)

II. OPTIONAL SUBJECTS.

LATIN.

TUESDAY, JUNE 5TH :—MORNING, 9 TO 12.

Examiners, ... { REV. GEORGE CORNISH, LL.D.
A. JUDSON EATON, M.A., Ph.D.

I.

LATIN GRAMMAR AND COMPOSITION.

(In answering questions 1 to 5, candidates are requested to mark by the usual sign all *long vowels, and these only.*)

1. Decline *luna, Anchisēs, hortus, vir, iūdex, pēs corpus, cornū ;* the adjectives *memor* and *ācre ;* the pronoun *iste.* Decline together *rēs pūblica,* [illegible].

2. Give the rules of gender for nouns of the fourth and fifth declensions Give the genitive singular, the gender, and meaning, of *metus, salus, parēns, cor, āēr, collis, plebs, virgō, lacus.*

3. Compare *levis, vetus, maledicus, facilis, parvus : male, saepe, misere.*

4. Write down, in Latin, the Cardinal and Ordinal numbers from 10 to 20.

5. Inflect *moneo* and *audio* in the Present and Future Indicative ; *regō* in the Imperfect and Pluperfect Subjunctive ; *eō* in the Present Indicative. Give the Imperative of *prosum*, the Participles and Supines of *vereor.*

6. Name the prepositions which are used with the Ablative.

7. (*a*) Define and explain the expressions *Subjective Genitive, Objective Genitive.* (*b*) After what classes of *Verbs* in Latin is the Object put in the Genitive ? (*c*) What peculiarity of construction after the verbs *recordor* and *miseror* ?

8. *Tu si hic sis, aliter sentias—Tu si hic esses, aliter sentires.* Translate, and explain the difference between these sentences.

9. The English Infinitive cannot always be translated by the Latin Infinitive. Explain and illustrate by examples this observation.

10. Translate into Latin:

(1) Nearly all the rest of the Gauls were surpassed in bravery by the Helvetii. (2) He was led on by ambition for royal power. (3) There is a suspicion that he died by his own hand. (4) This river could be crossed in two places by fording. (5) In the meantime, when the soldiers had come together from the province, Caesar employed them for building a wall and fortifying redoubts, in order that he might easily keep the Helvetii from crossing.

II.

Caesar and Virgil.

1. Translate:

(*a*) Hoc proelio facto reliquas copias Helvetiorum ut consequi *posset* pontem in Arare *faciendum* curat atque ita exercitum traducit. Helveti repentino eius adventu commoti, cum id, quod ipsi diebus xx aegerrime confecerant, ut flumen *transirent*, illum uno *die* fecisse *intellegerent*, legatos ad eum mittunt; cuius legationis Divico princeps fuit, qui bello Cassiano dux Helvetiorum fuerat. Is ita cum Caesare egit: Si pacem populus Romanus cum Helvetiis *faceret*, in eam partem *ituros* atque ibi futuros Helvetios, ubi eos Caesar constituisset atque esse voluisset: sin bello persequi perseveraret, *reminisceretur* et veteris *incommodi* populi Romani et pristinae virtutis Helvetiorum.

(*b*) Interim saepe ultro citroque cum legati inter eos mitterentur Ariovistus postulavit, ne quem peditem ad colloquium Caesar adduceret, *vereri* se, ne per insidias ab eo circumveniretur: uterque cum equitatu veniret; alia ratione sese non esse venturum. Caesar, quod neque colloquium interposita causa tolli volebat neque salutem suam Gallorum equitatui *committere* audebat, commodissimum esse statuit omnibus *equis* Gallis *equitibus detractis* eo legionarios milites legionis decimae, *cui* quam maxime confidebat, imponere, ut praesidium quam amicissimum, si quid opus facto esset, haberet. Quod cum fieret, non irridicule quidam ex militibus decimae legionis dixit: plus quam pollicitus esset, Caesarem facere: pollicitum se in cohortis praetoriae loco decimam legionem habiturum, ad equum rescribere.

2. Explain carefully the construction of the words *italicised* in the above passages, stating, where you can, the rule.

3. Give the dates of Caesar's birth and murder, and a short account of his early life.

4. Translate:

(*a*) Vix e conspectu Siculae telluris in altum
Vela dabant laeti et spumas salis aere ruebant;
Cum Iuno, aeternum servans sub pectore vulnus,
Haec secum: "Mene incepto desistere victam,
Nec posse Italia Teucrorum avertere regem!
Quippe vetor fatis. Pallasne exurere classem
Argivum, atque ipsos potuit submergere ponto,
Unius ob noxam et furias Aiacis Oïlei?
Ipsa, Iovis rapidum iaculata e nubibus ignem,
Disiecitque rates, evertitque aequora ventis:
Illum, exspirantem transfixo pectore flammas,
Turbine corripuit, scopuloque infixit acuto.
Ast ego, quae divum incedo regina, Iovisque
Et soror et coniux, una cum gente tot annos
Bella gero. Et quisquam numen Iunonis adoret
Praeterea, aut supplex aris imponat honorem?"

(*b*) Aeneas—neque enim patrius consistere mentem
Passus amor—rapidum ad naves praemittit Achaten
Ascanio ferat haec, ipsumque ad moenia ducat.
Omnis in Ascanio cari stat cura parentis.
Munera praeterea, Iliacis erepta ruinis,
Ferre iubet, pallam signis auroque rigentem,
Et circumtextum croceo velamen acantho,
Ornatus Argivae Helenae; quos illa Mycenis,
Pergama cum peteret inconcessosque hymenaeos,
Extulerat, matris Ledae mirabile donum:
Praeterea sceptrum, Ilione quod gesserat olim,
Maxima natarum Priami, colloque monile
Baccatum, et duplicem gemmis auroque coronam.
Haec celerans, iter ad naves tendebat Achates.

5. (*a*) Account for the infinitive *desistere* in the fourth line of (*a*). (*b*) Give the derivation and meaning of *fragor, rupes, armentum, condere, infundos, convivium, aligerum, resides* (*animōs*). (*c*) Write short notes in explanation of the following expressions: *iudicium Paridis: Mavortia moenia: gentem togatam: belli portae: Maia genitum: Phoebi soror.* (*d*) Scan the seventh and eighth lines of extract (*a*).

6. Translate (at sight):

BATTLE OF MARATHON.

Hoc in tempore nulla civitas Atheniensibus auxilio fuit praeter Plataeenses. Ea mille misit militum. Itaque horum adventu decem milia

armatorum completa sunt; quae manus mirabili flagrabat pugnandi cupiditate. Quo factum est, ut plus quam collegae Miltiades valeret. Eius ergo auctoritate impulsi Athenienses copias ex urbe eduxerunt locoque idonco castra fecerunt. Dein postero die sub montis radicibus acie regione instructa non apertissima proelium commiserunt. Namque arbores multis locis erant rarae, hoc consilio, ut et montium altitudine tegerentur et arborum tractu equitatus hostium impediretur, ne multitupine clauderentur. Datis, etsi non aequum locum videbat suis, tamen fretus numero copiarum suarum confligere cupiebat, eoque magis, quod, priusquam Lacedaemonii subsidio venirent, dimicare utile arbitrabatur. Itaque in aciem peditum centum, equitum decem milia produxit proeliumque commisit. In quo tanto plus virtute valuerunt Athenienses, ut decemplicem numerum hostium profligarint adeoque perterruerint, ut Persae non castra, sed naves patierint. Qua pugna nihil adhuc est nobilius. Nulla enim unquam tam exigua manus tantas opes prostravit.

N.B.—Candidates for Matriculation may omit *either* question 10 of I. *or* 6 of II., and may substitute *any two* of the following passages and questions for II. 1–5.

I. Prima luce productis omnibus copiis, duplici acie instituta, auxiliis in mediam aciem coniectis, quid hostes consilii caperent exspectabat. Illi etsi propter multitudinem et veterem belli gloriam paucitatemque nostrorum se tuto dimicaturos existimabant, tamen tutius esse arbitrabantur obsessis viis commeatu intercluso sine ullo vulnere victoria potiri, et si propter inopiam rei frumentariae Romani sese recipere coepissent, impeditos in agmine et sub sarcinis infirmiore animo adoriri cogitabant. Hoc consilio probato ab ducibus, productis Romanorum copiis sese castris tenebant. Hac re perspecta Crassus, cum sua cunctatione atque opinione timidiores hostes nostros militesque alacriores ad pugnandum effecissent, atque omnium voces audirentur exspectari diutius non oportere quin ad castra. iretur, cohortatus suos omnibus cupientibus ad hostium castra contendit.

Caesar, Bk. III.

(*a*) *Duplici acie:* the normal order for the offensive was the *acies triplex*,—when was the *acies duplex* deemed sufficient. (*b*) Remark on the use of the *ablative of quality* and the *partitive genitive* in Latin, and select one example of each from the above extract. (*c*) Account for the construction of *victoria*, *rei frumentariae*, *castris*, *iretur*.

II. Pugnatum est ab utrisque acriter. Nostri tamen, quod neque ordines servare neque firmiter insistere, neque signa subsequi poterant, atque alius ex navi quibuscunque signis occurrerat se aggregabat, magno opere perturbabantur: hostes vero notis omnibus vadis, ubi ex litore aliquos singulares ex navi egredientes conspexerant, incitatis equis impeditos adoriebantur, plures paucos circumsistebant, alii ab latere

aperto in universos tela coniciebant. Quod cum animadvertisset Caesar, scaphas longarum navium, item speculatoria navigia militibus compleri iussit, et quos laborantes conspexerat, his subsidia submittebat. Nostri simul in arido constiterunt, suis omnibus consecutis in hostes impetum fecerunt atque eos in fugam dederunt neque longius prosequi potuerunt, quod equites cursum tenere atque insulam capere non potuerant. Hoc unum ad pristinam fortunam Caesari defuit.

CAESAR, B. G. IV.

(*a*) Write a note on the *impersonal construction* of passive verbs, and the *adjective used substantively*, and illustrate by one or more examples in passage II. (*b*) What compound verbs take the dative? (*c*) Give the derivation of *aggregabat, universos, coniciebant, speculatoria, pristinam*.

III. Hic aliud maius miseris multoque tremendum
Obicitur magis, atque inprovida pectora turbat.
Laocoon, ductus Neptuno sorte sacerdos,
Sollemnis taurum ingentem mactabat ad aras.
Ecce autem gemini a Tenedo tranquilla per alta--
Horresco referens – inmensis orbibus angues
Incumbunt pelago, pariterque ad litora tendunt;
Pectora quorum inter fluctas arrecta iubaeque
Sanguineae superant undas; pars cetera pontum
Pone legit sinuatque inmensa volumine terga;
Fit sonitus spumante salo. Iamque arva tenebant,
Ardentisque oculos suffecti sanguine et igni,
Sibila lambebant linguis vibrantibus ora.
Diffugimus visu exsangues. Illi agmine certo
Laocoonta petunt; et primum parva duorum
Corpora natorum serpens amplexus uterque
Inplicat et miseros morsu depascitur artus;
Post ipsum, auxilio subeuntem ac tela ferentem,
Corripiunt, spirisque ligant ingentibus; et iam
Bis medium amplexi, bis collo squamea circum
Terga dati, superant capite et cervicibus altis.
Ille simul manibus tendit divellere nodos,
Perfusus sanie vittas atroque veneno,
Clamores simul horrendos ad sidera tollit.

VIRGIL, AEN. II.

(*a*) Explain the grammatical construction of *Neptuno, sorte, orbibus, volumine, oculo, visu, auxilio, terga, capite*. (*b*) Scan the first three lines. (*c*) Write brief notes on the following: *Mycenae, Palladium, Pelopea moenia, fuimus Troes, adytum*.

GREEK.

TUESDAY, JUNE 5TH:—AFTERNOON, 2 TO 5.

Examiners,..... { VERY REV. DEAN NORMAN, D.D.
REV. G. H. A. MURRAY, D.A.

N.B.—The answers to the questions in groups (A) and (B) to be kept separate.

A.

1. Translate, Xenophon, Anabasis, Bk. I.

(a) Μένων δεὲ πρὶν δῆλον εἶναι τί ποιήσουσιν οἱ ἄλλοι στρατιῶται, πότερον ἐψονται Κύρῳ ἢ οὔ, συνελεξε τὸ αὑτοῦ στράτευμα χωρὶς τῶν ἄλλων καὶ ἔλεξε τάδε· Ἄνδρες, ἐάν μοι πεισθῆτε, οὔτε κινδυνεύσαντες οὔτε πονήσαντες τῶν ἄλλων πλέον προτιμήσεσθε στρατιωτῶν ὑπὸ Κύρου. τί οὖν κελεύω ποιῆσαι : νῦν δεῖται Κῦρος ἕπεσθαι τοὺς Ἕλληνας ἐπὶ Βασιλέα· ἐγὼ οὖν φήμι ὑμᾶς χρῆναι διαβῆναι τὸν Εὐφράτην ποταμὸν πρὶν δῆλον εἶναι ὅ, τι οἱ ἄλλοι Ἕλληνες ἀποκρινοῦνται Κύρῳ Ἢν μὲν γὰρ ψηφίσωνται ἕπεσθαι, ὑμεῖς δόξετε αἴτιοι εἶναι ἀρξαντες τοῦ διαβαίνειν, καὶ ὡς προθυμοτάτοις οὖσιν ὑμῖνχάριν εἴσεται Κῦρος καὶ ἀποδώσει· ἐπίσταται δ' εἴ τις καὶ ἄλλος· ἢν δ' ἀποψηφίσωντάι οἱ ἄλλοι, ἄπιμεν μὲν ἅπαντες εἰς τοὖμπαλιν, ὑμῖν δὲ ὡς μόνοῖς πειθομένοις πιστοτάτοις χρήσεται καὶ εἰς φρούρια καὶ εἰς λοφαγίας, καὶ ἄλλου οὑτινος ἂν δέησθε. οἶδα ὅκι ὡς φίλοῦ τεύξεσθε Κύρου.

(b) Ὁ οὖν Κλέαρχος οὐκ ἀνεβίβαζεν ἐπὶ τὸν λόφον, ἀλλ' ὑπὸ αὐτὸν στήσας το στράτευμα πέμπει Δύκιον τὸν Συρακόσιον καὶ ἄλλον ἐπὶ τὸν λόφον καὶ κελεύει κατιδόν-

τας τὰ ὑπὲρ τοῦ λόφου τί ἐστιν ἀπαγγεῖλαι. Καὶ ὁ Λύκιος ἥλασέ τε καὶ ἰδὼν ἀπαγγελλει, ὅτι φεύγρυσιν ἀνὰ κράτος· σχεδὸν δ' ὅτε ταῦτα ἦν καὶ ἥλιος ἔδυετο. Ἐνταῦθα δ' ἔστησαν οἱ Ἕλληνες καὶ θέμενοι τὰ ὅπλα ἀνεπαύοντο· καὶ ἅμα μὲν ἐθαύμαζον, ὁτι οὐδαμοῦ Κῦρος φαίνοιτο οὐδ' ἄλλος ἀπ' αὐτοῦ οὐδείς παρείη· οὐ γὰρ ἤδεσαν τεθνηκότα, ἀλλ' εἴκαζον ἢ διώκοντα οἴχεσθαι ἢ καταληψόμενόν τι προελη-λακέναι. Καὶ αὐτοὶ ἐβουλεύοντο, εἰ αὐτοῦ μείναντες τὰ σκευοφόρα ἐνταῦθα ἄγοιντο ἢ ἀπίοιεν ἐπὶ τὸ στρατόπεδον. ἔγοξεν οὖν αὐτοῖς ἀπιέναι· καὶ ἀφικνοῦντας ἀμφὶ δόρπησ-νον ἐπὶ τὰς σκήνας.

2. Explain the construction of the following :—(*a*) *νῆλον εἶναι.* (*b*) *πεισῆτε.* (*c*) *οὗτος μὲν αὐτοῦ ἥμαρτεν.* (*d*) *ὑστέρησε τῆς μάχης ἡμέρας πέντε.* (*e*) *ἄρξαντες τοῦ διαβαίνειν·* (*f*) *οὐδὲν ἤχθετο αὐτῶν πολεμούντων.*

3. Give the meaning and derivation of :—*δαρεικούς, ξένος, σταθμούς, ἡμιόλον, δυσπόρευτος, πλῆθος, μεσημβρίαν, ἐγκρατεῖς.*

4. (*a*) Decline the following words :—*ἀνήρ, ῥήτωρ, λαγώς, χώρα.* (*b*) Write down the *Nom. Sing.* and *Dat. Plu.* of *γυναῖκα, κέρατα, χειμῶνος, ἄρνιν, μηνός, τείχη.* (*c*) Give the Comparative and Superlative of :—*πολύς ταχύς. πιστός, σφός, ἄνω, μάλα.* (*d*) Write down the *Aorist* and *Future* (1st Sing.), Indicative, of :—*ἀγγέλλω, πέμπω, πίπτω, ποιίω.*

5. (*a*) State and illustrate the rule for the *number* of the verb, when its nominative is a noun in the *neuter plural.* (*b*) Give the several meanings of *αὐτὸς* according to its position

6. (*a*) Distinguish *ποῦ, ποῖ, πότε, πόθεν, πῶς.* (*b*) Give the gen. dat. and accus. sing, and dat. plural of *κύων, θριξ, πατήρ, βοῦς.* (*c*) Give the Greek for 20, 8 times, the 5th, 6 each, 14, the 100th. (*d*) Name the Greek neuter terminations of the 2nd and 3rd declensions.

7. Translate into Greek (1) The king himself did this. (2) The next day the army came. (3) The horse runs very fast. (4) He took pleasure in doing good to his children. (5) He came to see his son.

B.

HOMER, Iliad, Bk. IV.

1. Translate :—

ὣς εἰπὼν ὤτρυνε πάρος μεμαυῖαν Ἀθηνην,
βῆ δὲ κατ' οὐλύμποιο Καρήνων αἰξασα.
οἷον δ' ἀστέρα ἧκε κρονου παῖς ἀγκυλομήτεω,
ναύτῃσι τέρας ηὲ στρατῷ εὐρέι λαῶν,
λαμπρόν· τοῦ δέ τε πολλοὶ ἀπὸ σπινθῆρες ἵενται
τῷ εἰκυῖ' ἥιξεν ἐπὶ χθόνα Παλλὰς Ἀθήνη,
κὰδ δ' ἔθορ' ἐς μεσσον. θάμβος δ' ἔχεν εἰσορόωντας
Τρῶάς θ' ἱπποδάμους καὶ ἐυκνήμιδας Ἀχαιούς.
ὧδε δέ τις εἴπεσκεν ἰδὼν ἐς πλησίον ἄλλον·
"ἦ ῥ αὖτις πολεμός τε κακὸς καὶ φύλοπις αἰνή
ἔσσεται, ἢ φιλότητα μετ' ἀμφοτέροισι τίθησιν
Ζεύς, ὅς τ' ἀνθρώπων ταμίης πολέμοιο τέτυκται."

2. Parse the underlined words in the above extract, giving principal parts of the verbs.

3. Translate :—

" ὦ υἱὲ πετεῶο διοτρεφέος βασιλῆος,
καὶσύ, κακοῖσι δόλοισι κεκασμένε, κερδαλεόφρον,
τίπτε καταπτώσσοντες ἀφέστατε, μίμνετε δ' ἄλλους ;
σφῶιν μέν τ' ἐπέοικε μετὰ πρώτοισιν ἐόντας
ἑστάμεν ἠδὲ μάχης καυστειρῆς ἀντιβολῆσα·
πρώτω γὰρ καὶ δαιτὸς ἀκουάζεσθον ἐμεῖο,ιι
ὁππότε δαῖτα γέρουσιν ἐφοπλίζωμεν Ἀχαοι.
ἔνθα φίλ' ὀπταλέα κρεα ἔδμεναι ἠδὲ κύπελλα
οἴνου πινέμεναι μελιηδέος ὅφρ' ἐθελητον·
νῦν δὲ φίλως χ' ὁρόῳτε καὶ εἰ δέκα πύργοι Ἀχαιῶν
ὑμείων προπάροιθε μαχοίατο νηλέι χαλκῷ."

4. Give the Attic equivalents of the Homeric forms and a list of the digammated words found under 3.

5. Translate with brief explanatory notes :—

(1) *καρηκομόωντες Ἀχαιοί·*

(2) *αἱ δ' ἐπέμυξαν Ἀθηναιη τε καὶ Ἥρη·*

(3) *ποῖόν σε ἔπος φύγεν ἕρκος ὀδόντων·*

(4) *ἕλκε δ' ὁμοῦ γλυφίδας τε λαβὼν καὶ νεῦρα βόεια*

(5) *πολυμήχαν' Ὀδυσσεῦ.*

6. Give the meaning and derivation of the following epithets, and, if you can, the noun each one qualifies :—

φιλομμειδὴς, ἐυμμελίω, νεφεληγερέτα,
ἁρματοπηγὸς, βοῶπις, εὐρυάγυια. ἀγκυλομητης,
ὑπερηνορεόντων, μενεπτόλεμος, γλαυκῶπις.

GERMAN.

THURSDAY, JUNE 7TH: AFTERNOON, 3.30 TO 5.

Examiners..... { A. JUDSON EATON, M.A., PH.D.
L. R. GREGOR, B.A.

1. Translate into English:

(*a*) Der Schwamm ſagte zum Gras: "Ich ſchieße in einem Augenblick auf; indeſſen du einen ganzen Sommer hindurch wachſen mußt, um zu werden, was ich in einem Augenblicke bin."

"Es iſt wahr," erwiederte das Gras, "ehe ich etwas werth bin, kann dein ewiger Unwerth hundertmal entſtehen und hundertmal wieder vergehen."

(*b*) Oft ſieht die Wahrheit wie eine Lüge aus. Das erfuhr ein Fremder, der vor einigen Jahren mit einem Schiff aus Weſtindien an den Küſten der Oſtſee ankam. Damals war der ruſſiſche Kaiſer, Alexander I., bei dem König von Preußen, Friedrich Wilhelm III., auf Beſuch. Beide Monarchen ſtanden in gewöhnlicher Kleidung, ohne Begleitung, Hand in Hand, als zwei recht gute Freunde, bei einander am Ufer.

(*c*) Ein Wanderer kam im heißeſten Sommer zu einer Quelle. Er war ſtark und lange gegangen; Schweiß ſtand auf ſeiner Stirne und ſeine Zunge war vom Durſte faſt vertrocknet. Da ſah er dies ſilberhelle Waſſer, glaubte, hier neue Kräfte zu ſammeln, und trank mit gierigen Zügen. Aber die ſchneidende, zu ſchnell abwechſelnde Kälte wirkte ſo ſchädlich auf ihn, daß er zu Boden ſank.—"Ach, ſchändliches Gift!" rief er. "Wer hätte unter einem ſo reizenden Anſchein ſolch eine Bosheit vermuthet?"

2. Translate into German:

(*a*) We have rowed a long while against the stream.
(*b*) The doctor shook his head, for he had no hope.
(*c*) When she was in the city, she lived at her aunt's.
(*d*) The city of Berlin is the capital of the kingdom of Prussia.
(*e*) The bees gather honey from the flowers upon the heath.
(*f*) This mother buys her children something useful.

(*g*) Why is Charles crying? He has been bitten by a dog.

(*h*) Green is agreeable for those who have weak eyes

(*i*) This is the song I sang a week ago.

(*j*) Many a one begins what he will never finish.

(*k*) During the rain we sat under a tree and told stories.

(*l*) Which do you prefer, riding or driving?

3. Give in German the three principal parts of the following verbs: suffer, write, whistle, look, swear, pour, help, speak, wash, succeed.

4. Decline in the singular the German for: *my young son, the little daughter.*

5. (*a*) Decline in the singular the German for the following: The dog, Switzerland, the city of London, the boy, the woman. (*b*) Give the nominative plural of Laden (shop), Tag, Wort, (distinguish between the two plurals), Blume, Haus, Hand.

6. (*a*) What auxiliary is taken by the following verbs: kommen breiten, begehen, ſtuben, gelingen, folgen?

7. (*a*) What limitation is placed upon the use of welcher as a relative pronoun? (*b*) What classes of antecedents may the indefinite relative pronoun *was* have?

8. When is *du* used in address?

GEOMETRY.

MONDAY, JUNE 4TH:—AFTERNOON, 2 TO 4.

Examiners, ... { REV. PRINCIPAL ADAMS, LL.D. / H. M. TORY, B.A. / F. TOPP, B.A.

(Answer eight of the twelve questions, of which 7 and 9 must be two. Avoid repetitions. Ordinary symbols and abbreviations may be used.)

1. If a straight line fall upon two parallel straight lines, it makes the alternate angles equal to one another. Prove this.

2. If the opposite angles of a quadrilateral are equal, the quadrilateral is a parallelogram.

3. Parallelograms on the same base and between the same parallels are equal in area.

4. Prove that the middle point of the hypotenuse of a right-angled triangle is equidistant from the three angular points: Euclid I, 1—32 allowed for use.

5. To a given straight line to apply a parallelogram, with a given angle, and with its area equal to a given triangle.

6. Construct a right-angled triangle, having given the hypotenuse and the sum of the other two sides.

7. To divide a straight line so that the rectangle contained by the whole and one part shall be equal to the square of the other part.

8. $A\,B\,C$ is a triangle, D middle point of base $B\,C$, shew by help of II, 12 and 13, that

$$AB^2 + AC^2 \quad 2\,AD^2 + 2\,BD^2$$

9. Distinguish between 'angle in a segment' and 'angle of a segment.' Prove that angles in the same segment are always equal and angles in segments on opposite sides of the same chord are supplementary—*i.e.*, together equal to two right angles.

10. Through a given point in a circle find the longest and the shortest chord and the angle between them.

11. In equal circles equal angles stand upon equal arcs whether they be at the centres or circumferences.

12. From a point A without a circle are drawn two straight lines AB meeting the circle and ACD cutting the circle, and it is given that rectangle $AC.AD$ = square of AB.
Prove that AB touches the circle (III 37).

ALGEBRA.

FRIDAY, JUNE 1ST:—AFTERNOON, 2 to 3.30.

Examiners, ... { REV. PRINCIPAL ADAMS, D.C.L.
H. M. TORY, B.A.
F. TOPP, B.A.

1. Find the H.C.F. (Highest Common Factor) of $18\,a^3 - 18\,a^2\,x + 6\,ax^2 - 6\,x^3$ and $60\,a^2 - 75\,a\,x + 15\,x^2$.

2. Simplify $\frac{1}{x^2 - a^2} + \frac{1}{x^2 + a^2} - \frac{1}{(x-a)^2}$, and divide $x^5 - \frac{1}{x^5}$ by $x - \frac{1}{x}$

3. Resolve into elementary factors the following:
$x^2 + 5\,x - 14$, $4\,x^2 - 12\,x + 9$, $2\,x^2 + 7x - 39$, $a^6 - 64$, $x^2 - \frac{5}{6}\,x - 1$,
$(x - 3y)^3 - (y - 3\,x)3$

4. Solve the following equations:

(*a*) $\frac{6x+8}{2x+1} - \frac{2x+38}{x+12} = 1$

(*b*) $\begin{cases} \frac{a}{x} + \frac{b}{y} = m \\ \frac{b}{x} - \frac{a}{y} = n \end{cases}$

(*c*) $8x + \frac{7}{x} = \frac{65x}{7}$

(*d*) $\begin{cases} \frac{a^2}{x^2} - \frac{y^2}{b^2} = 12 \\ \frac{ab}{xy} = 2 \end{cases}$

5. Simplify $\sqrt{512} - \sqrt{50} - 4\sqrt{98}$, and find value of $\sqrt{10} \times \sqrt[3]{20} \times \sqrt[4]{80}$.

6. Find a number of two digits, such that the quotient obtained by dividing it by the sum of the digits exceeds the digit in place of tens by one, and is equal to the digit in place of units.

7. The diagonal and longer side of a rectangle are together 5 times the shorter side, and the longer side exceeds the shorter by 35 yards. Find the lengths of the sides.

TRIGONOMETRY.

MONDAY JUNE 4TH:—AFTERNOON, 4 to 5.30.

Examiners,..... { REV. PRINCIPAL ADAMS, D.C.L.
H. M. TORY, B.A.
F. TOPP, B.A.

1. Derive and explain the formula $A = \frac{a}{r}$.

The radius of a circle is 18 ft., find the length of the arc subtending an angle of 10° at the centre.

2. Prove that $\sin A = \cos(90 - A)$; also that $\sin A = \sin(180 - A)$

3. Given $\sin B = \frac{3}{5}$, construct the angle, and find the values of $\cos B$, $\tan B$ and $\sec B$.

4. Prove the following relations:

1. $\tan x + \cot x = \sec x \operatorname{cosec} x$

2. $\cos C = \frac{\cot C}{\sqrt{1 + \cot^2 C}}$

3. $\cot^2 A - \cot^2 B = \frac{\sin^2 B - \sin^2 A}{\sin^2 B \cdot \sin^2 A}$

5. Prove that $\sin (A + B) = \sin A \cos B + \cos A \sin B$, and also that $\cos (A + B) = \cos A \cos B - \sin A \sin B$

6. Prove the following relations :

(1) $\sin P + \sin Q = 2 \sin \frac{P + Q}{2} \cos \frac{P - Q}{2}$

(2) $\tan (A + B) = \frac{\tan A + \tan B}{1 - \tan A \,.\, \tan B}$

(3) $\frac{\tan x + \tan y}{\cot x - \tan y} = \tan x \,.\, \tan (x + y)$

(4) $\frac{\cos 3^\circ - \cos 33^\circ}{\sin 3^\circ + \sin 33^\circ} = \tan 15^\circ$

ENGLISH LANGUAGE.

MEIKLEJOHN : *English Language*, Parts I., II., III. TRENCH : *Study of Words*.

FRIDAY, JUNE 8TH :—AFTERNOON, 3.30 TO 5.30.

Examiners, ... JOHN L. DAY, B.A.
P. T. LAFLEUR, M.A.
REV. PRINCIPAL ADAMS, LL.D.
REV. J. HEPBURN, M.A.
REV. R. HEWTON, M.A.
REV. M. O. SMITH, B.D.

Candidates will answer the *first* question and *two others* from Division I ; the *first* question and *two others* from Division II. The Analysis must be attempted by all.

I.

1. What does Meiklejohn say on these points ?

(*a*) Bilingualism.

(*b*) The English element in English.

(*c*) The influence of the Scandinavian element.

(*d*) Latin triplets.

(*e*) The expulsion of gutturals.

2. (*a*) What causes operated in bringing about the change from the synthetic to the analytic in English ? (*b*) Divide the language into periods, giving dates, authors cited, and main characteristics in each.

3. (1) Shew the influence of dialects on the language. (2) State the exact source of the following : cradle, mews, wall, rogue, root. (3) What classes of words are introduced by the Norman-French ?

4. What was the oldest form of the English language, and when was it spoken? Sketch the progress of "the Spread of English over Britain." Name the Teutonic languages.

5. (I) What are the sources of doublets? (II) Give doublets for: blame, hospital, fashion, respect, slander, priest, poison, treason. (III) A short account of the grammatical peculiarities of Early English (1100-1250).

II.

6. What general principles are involved in the history and use of the following: (1) Paradise, (2) Sacrament, (3) Gnostics, (4) Shire, (5) idiot, (6) post.

7. Distinguish the synonyms of authentic, congratulate, detest, opposite. What is said of Cicero's use of synonyms? Write some homonyms, and give their etymology.

8. Short notes on any four of these subjects:

(*a*) National characteristics in language.

(*b*) The desynonymizing process.

(*c*) The deterioration of words.

(*d*) The naturalization of words.

(*e*) Deficiencies of language.

9. Treat briefly three of the following:

(I) Absurd etymologies.

(II) Difficulties of translation.

(III) The causes of new words.

(IV) Trench's criticism of Johnson's dictionary.

III.

Analysis:

"I cannot better conclude this lecture than by quoting a passage, one among many, which expresses with a rare eloquence all I have been labouring to utter; for this truth which many have noticed, hardly any has set forth with the same fulness of illustration, or the same sense of its importance, as the author of "*The Philosophy of the Inductive Sciences.*"

TRENCH.

ENGLISH LITERATURE.

WEDNESDAY, JUNE 6TH :—AFTERNOON, 2 TO 3.30.

Examiners, { REV. PRINCIPAL ADAMS, LL.D. / P. T. LAFLEUR, M.A. / JOHN L. DAY, B.A. / REV. J. HEPBURN, M.A. / REV. R. HEWTON, M.A. / REV. M. O. SMITH, B.D.

(N.B.—Only *two* questions to be done from each division.

I.

1. Mention six of Shakespeare's dramatic contemporaries:—who has been called his teacher? Mention the chief works of Thomas More, Tyndale and Philip Sidney.

2. Who wrote the following? Mention one fact about each work *or* about each author: Hudibras, The Task, The Library, Songs of Innocence, The Prelude, Pleasures of Hope, Adonais, Hyperion, Essays of Elia, Manfred.

3. Give some account of Walter Savage Landor, Thomas de Quincey, Thomas Babington Macaulay as writers.

II.

Julius Cæsar.

4. Give a list of the conspirators against Julius Cæsar, and a short sketch of the causes which led to that conspiracy.

5. Write a brief note on each of the following words or expressions as used in the play, explaining the allusion if any:—'Colossus,' 'Anchises,' 'a Brutus once,' 'quick metal,' orchard,' 'rheumy,' 'Cato's daughter,' 'base spaniel fawning,' 'pulpit,' 'Do not talk of him but as a property,' 'ides of March,' 'thou beest,' 'this cynick rhyme.'

6. Give a brief comparison in form, matter and style of the speeches of Brutus and Antony. How does each illustrate the character of the speaker?

III.

Lady of the Lake.

7. Explain the allusions in the following lines, and show how each comes in :—

(*a*) "I found a fay in fairyland."

(*b*) "Old Allan Bane foretold your plight."

(*c*) "Of Ferragus or Ascabart."

(*d*) "Some memory of that exiled race."

(*e*) Forgive, forgive Fidelity.

(*f*) "This harp which erst Saint Modan swayed."

Name six kinds of trees or plants mentioned in the Lady of the Lake.

8. Describe the gathering of the Clan. What king of Scotland is introduced in the Poem, and what connection has he with English history? How far was the king's power fully recognised in Scotland at the time of the poem? What light does it throw on the relations of Highlander and Lowlander?

9. Make a note on each of the following names or expressions as mentioned in the poem:—

(*a*) Loch Voil, (*b*) Loch Doine, (*c*) Balvaig, (*d*) Strath Gartney, (*e*) Benvenue, (*f*) Menteith, (*g*) Achray, (*h*) Glentrkin, (*i*) Trosach, (*j*) Rome, (*k*) Craig-Forth (*l*) Brent.

HISTORY.

THURSDAY, JUNE 7TH :—AFTERNOON, 2 TO 3.30.

Examiners,..... P. T. LAFLEUR, M.A.
REV. PRINCIPAL ADAMS, LL.D.
JOHN L. DAY, B.A.
REV. J. HEPBURN, M.A.
REV. R. HEWTON, M.A.
REV. M. O. SMITH, B.D.

(N.B.—Candidates may answer *two* questions, and not more, from each of the Divisions I and II; and *three* from Division III.

I.

1. Make short notes on:—Pericles, Periander, Demosthenes, Alexander the Great. Give dates.

2. Explain briefly; Periœki and Helots, Tyrants, the Ten Thousand, the cause of the Disunion of Greece.

3. Name, with their dates, *four* great battles in the Peloponnesian war, and give some account of any *one*.

II.

4. Who were:—Cincinnatus, Hannibal, Marius, Octavianus? Give dates.

5. Explain briefly:—Agrarian Laws, System of Roman Colonisation, Social Wars, the Empire of the East.

6. Give with dates an account of the Third Punic War.

III.

7. Give an account, in outline, of:—(*a*) the growth of the Papacy, (*b*) the empire and government of Charlemagne.

8. Who were the Albigenses, Marino Faliero, William the Silent, Charles the Twelfth of Sweden? Give dates.

9. Give, with their dates, the names of three great European treaties subsequent to the year 1500. Discuss the leading conditions of any one, and give some idea of its importance in general European history.

10. Give, with dates, (*a*) an outline account of the expulsion of the Moors from Spain; *or* (*b*) the leading events in the history of France between 1789 and 1799.

GEOGRAPHY.

WEDNESDAY, JUNE 6TH:—AFTERNOON, 3.30 TO 5.

Examiners..... { REV. J. HEPBURN, M.A.
P. T. LAFLEUR, M.A.
REV. PRINCIPAL ADAMS, LL.D.
JOHN L. DAY, B.A.
REV. R. HEWTON, M.A.
REV. M. O. SMITH, B.D.

(N.B.) Candidates may answer *two* questions, but not more, from each of the Divisions I., II., and III.

I.

1. Explain our solar system as to a class of children.

2. Arrange according to size in separate columns, the *Oceans*, *Lakes*, *Islands*, *Rivers* and *Cities* of the world. Ten enough.

3. What are the natural wonders of America? Describe briefly.

II.

1. Trace the River St. Lawrence from its source, and name its principal tributaries.

2. Where and what are Cotopaxi, Galapagos, Quito, Mersey, Cronstadt, Teneriffe, Skager-rack, Aden, Tanganyika, Matapan.

3. Name the *cities* of Hindostan, the *islands* of Scotland and the *lakes* of Africa.

III.

1. What are the sources of England's wealth and power?

2. Point out peculiarities of the Chinese, Arabs, Mexicans, Eskimos and South Sea Islanders.

3. What countries are noted for *fruits?* which for *grains?* and which for *minerals?*

ZOOLOGY.

MONDAY, JUNE 11TH:—TIME, 1½ HOURS.

Examiner,.....W. E. DEEKS, B.A., M.D.

1. What animals are concerned in the building up of coral reefs? Describe the anatomy of any one of them.

2. (*a*) Classify the *Protozoa.*

(*b*) Give the principal characters of each class.

(*c*) State the conditions under which you would probably find them.

3. Describe the structure of any one member of the *Insecta or Lamellibranchiata.*

4. Describe the principal points of difference between Vertebrate and Invertebrate forms.

5. Write on the anatomy of the Lobster, or Cuttlefish.

6. How would you classify the following:—
Bat, Perch, Earthworm, Cricket, Hydra, Frog.

7. Give the principal characters of the following:—
Carnivora, Asteroidea, Polyzoa, Raptores. Cetacea, Araneida.

NOTE.—Candidates are required to answer only *five* of the above questions.

BOTANY.

THURSDAY, JUNE 7TH:—9 TO 10.30 A.M.

Examiner,.....D. P. PENHALLOW, B.Sc.

Group I.

1. Describe the structure of the stamen, and show what function it is to perform.

2. A flower is said to be gamopetalous, polypetalous or apetalous. Show what these terms mean, and give examples.

3. Give a concise explanation of the structure of an ovule, and show what it produces.

4. Show how may types of leaves be distinguished as to venation, and what groups of plants may be thus recognized. Examples.

Group II.

5. Give an account of the structure and occurrence of stomata, and show what office they perform.

6. What is meant by fundamental or ground tissue? Give its principal characteristics.

7. Give a concise account of the nature and sources of plant food.

8. State what you can concerning the transpiration of plants.

Group III.

9. Ferns produce spores on the back or margin of the frond. Explain fully what such spores produce in development.

10. What is a fruit in Angiosperms? Give examples of four different kinds.

11. How may Angiosperms and Gymnosperms be distinguished? Give an example of each.

12. Describe fully the plant given. *This question is imperative.*

The Candidate will answer six questions including number twelve, selecting two from each group.

Examiners will please supply any common WILD flower, and take particular pains that ALL PARTS OF THE PLANT are present.

ELEMENTARY CHEMISTRY.

FRIDAY, JUNE 8TH—AFTERNOON, 1½ HOURS.

Examiner,.....NEVIL NORTON EVANS, M.A. Sc.

NOTE.—*Answer two questions only from each section.*

I.

1. Define accurately 5 of the following terms:—Atom, compound, symbol, efflorescent, combustion, distillation.

2. Distinguish between physical and chemical changes, and give at least 3 examples of each.

3. Give the names of 5 of the compounds represented by the following formulæ:—H_2S, HNO_3, $(H_4N)Cl$, H_3PO_4, CO_2, MnO_2, H_2O_2.

II.

1. How is Hydrogen prepared? Give a sketch of the apparatus employed.

2. How is pure water obtained? Give a sketch of the apparatus employed?

3. How does chlorine occur in nature, and what are its properties?

III.

1. Name two important compounds of nitrogen, and tell how one of them is prepared.

2. Describe briefly the different forms of carbon.

3. What chemical changes take place in an ordinary coal-fire.

PHYSIOLOGY AND HYGIENE.

THURSDAY, JUNE 7TH:—TIME, 1½ HOURS.

Examiner,.....W. E. DEEKS, B.A., M.D.

1. (*a*) Name the bones of the Lower Extremity.

(*b*) What structures constitute a Joint? Give the function of each structure.

2. Write on the anatomy and functions of the brain.

3. (*a*) What structures are concerned in the act of respiration?

(*b*) What is the difference between inspired and expired air?

4. Describe the structure and functions of the skin.

5. (*a*) What is a gland? (*b*) Name the more important ones with their situation and function.

6. What are the following? Give the situation and function of each: *Iris, Cochlea, Capillary, Plasma, Retina, Lacteal, Tricuspid, Œsophagus Left Ventricle, Thoracic duct.*

7. (*a*) What impurities are most frequently found in drinking water? (*b*) By what methods could these be removed or destroyed?

8. Name some of the most frequent causes of indigestion, and state how these may be avoided.

NOTE.—Candidates are required to answer only the last *three* and any three of the remaining *five* questions.

PHYSICS.

FRIDAY, 8TH JUNE:—MORNING, 9 TO 10.30.

Examiner,.....JOHN COX, M.A.

1. A corner of a lump of sugar is dipped in a cup of tea and held there. State what happens, giving the names of any properties or processes you describe, with one other experiment to illustrate each.

2. Make a diagram of an hydraulic press and explain its action.

3. Calculate the pressure in lbs. weight upon an area of 3 square feet sunk to a depth of 150 feet in a lake.

4. A substance weighing 8 ounces floats with $\frac{1}{12}$ of its bulk immersed in water. What is its specific gravity? What force would be required to push it just under water?

5. Describe the construction and use of *either* (1) a barometer or (2) a thermometer.

6. A stone is dropped down a well 400 feet deep. In what time will it reach the bottom?

7. A force of 2 oz. weight acts on a mass of 4 lbs. What is the acceleration? How far will the mass travel from rest in 5 seconds?

8. Explain the action of the siphon.

9. Shew that a coach is more likely to upset on an uneven road when the passengers are on top than when they are inside.

GEOMETRICAL AND FREEHAND DRAWING.

FRIDAY, JUNE 8TH, 1894:—9 TO 12 A.M.

Examiner,.....C. H. MCLEOD, MA.E.

1. Divide a line 3 inches long into three parts, having the ratio of 3 : 5 : 7.

2. Describe a circle in which angles of 30° at the circumference stand upon chords one inch in length.

3. The sides of a triangle measure 2 in., $2\frac{1}{2}$ in. and 3 in. Construct on the 3 in. side a rectangle having the same area as the triangle. (*a*) Construct also a square of equal area.

4. Draw the cyloid (a circle rolling on a straight line) generated a circle of 2 in. diameter.

5. Draw the development (the flat surface from which the object may be formed) of an hexagonal pyramid. The edges of the base measure one inch, and the slant edges three inches.

6. Make a freehand drawing, slightly enlarged, of the Acanthus ornament before you.

7. Make a freehand drawing of the pillow block as seen from your point of view. Your drawing should not be less than one-third the full size of the object.

NOTE.—Candidates are informed that the Geometrical (the first 5 questions) cannot be answered without instruments (compasses and straight-edge), and that no marks will be given for the freehand problems (6 and 7) if instruments are used in drawing them.

The objects for the freehand drawing work are to be placed on separate tables, and are to be four feet from the candidate. The pillow block in question 7 is placed so that the edges of the base make angles of 45° with the line joining the eye to the object. The Candidates must not touch the objects. The sub-examiner will direct the placing of the objects, and see that the candidates do not remain at a table more than one hour.

ADVANCED A. A.

(In the order given in the Regulations.)

III. ADVANCED OPTIONAL SUBJECTS.

LATIN.

TUESDAY, JUNE 5TH :—MORNING, 9 TO 12.30.

Examiner,..... .... A. JUDSON EATON, PH.D.

(Candidates are requested to answer questions 7, 8, 9, of Part I., and 4, 5 of Part II. of the paper for the ordinary A.A., and the following.)

1. Translate :

(*a*) Quae tecum, Catilina, sic agit, et quodam modo tacita loquitur: Nullum iam aliquot annis facinus exstitit nisi per te, nullum flagitium sine te : tibi uni multorum civium neces, tibi vexatio direptioque sociorum impunita fuit ac libera : tu non solum ad neglegendas leges et quaestiones, verum etiam ad evertendas perfringendasque valuisti. Superiora illa, quamquam ferenda non fuerunt, tamen, ut potui,. tuli : nunc vero me totam esse in metu propter unum te, quicquid increpuerit Catilinam timeri, nullum videri contra me consilium iniri posse quod a tuo scelere abhorreat, non est ferendum. Quam ob rem discede, atque hunc mihi timorem eripe : si est verus, ne opprimar : sin falsus, ut tandem aliquando timere desinam.

2. Translate and explain the construction of words or phrases *italicised* :

(*a*) Sed cum viderem, si illum, ut erat meritus, *morte multassem, fore ut* eius socios invidia oppressus persequi non *possem*, rem huc deduxi, ut tum patam pugnare possetis, cum hostem aperte videretis.

(*b*) Quid ea nocte egisset, quid in proximam constituisset, quem ad modum esset *et* ratio totius belli descripta, edocui.

(*c*) Est mihi *tanti*, Quirites, huius invidiae falsae atque iniquae tempestatem subire, dummodo a vobis huius horribilis belli ac nefarii periculum *depetlatur*.

3. Give a brief account of Catiline. What was the occasion of the first oration against Catiline, and when and where was it delivered?

4. Translate (at sight) :

(a) *The Generosity of Cimon.*

Hunc Athenienses non solum in bello, sed etiam in pace diu desi deraverunt. Fuit enim tanta liberalitate, cum compluribus locis praedia hortosque haberet, ut numquam in eis custodem imposuerit fructus ser vandi gratia, ne quis impediretur, quo minus eius rebus, quibus quisque vellet, frueretur. Semper eum pedisequi cum nummis sunt secuti, ut, si

quis opis eius indigeret, haberet quod statim daret, ne differendo videretur negare. Saepe cum aliquem offensum fortuna videret minus bene vestitum, suum amiculum dedit. Quotidie sic coena ei coquebatur, ut, quos invocatos vidisset in foro, omnes devocaret; quod facere nullum diem iprae termittebat. Nulli fides eius, nulli opera, nulli res familiaris defuit; multos locupletavit: complures pauperes mortuos, qui unde efferrentur non reliquissent, suo sumptu extulit. Sic se gerendo minime est mirandum, si et vita eius fuit secura et mors acerba.

(b) *Vercingetorix accused of Treachery. His Defence.*

Vercingetorix cum ad suos redisset, proditionis insimulatus,—quod castra propius Romanos movisset, quod cum omni equitatu discessisset, quod sine imperio tantas copias reliquisset, quod eius discessu Romani tanta opportunitate et celeritate venissent; non haec omnia fortuito aut sine consilio accidere potuisse; regnum illum Galliae malle Caesaris concessu quam ipsorum habere beneficio—tali modo accusatus ad haec respondit: Quod castra movisset factum inopia pabuli etiam ipsis hortantibus: quod propius Romanos accessisset persuasum loci opportunitate, qui se ipsum munitione defenderet: equitum vero operam neque in loco palustri desii derari debuisse, et illic fuisse utilem quo sint profecti: summam imperise consulto nulli discedentem tradidisse, ne is multitudinis studio ad dimicandum impelleretur; cui rei propter animi mollitiem studere omnes videret, quod diutius laborem ferre non possent. Romani si casu intervenerint, fortunae; si alicuius indicio vocati, huic habendam gratiam quod et paucitatem eorum ex loco superiore cognoscere et virtutem despicere potuerint, qui dimicare non ausi turpiter se in castra receperint. Imperium se ab Caesare per proditionem nullum desiderare quod habere victoria posset, quae iam esset sibi atque omnibus Gallis explorata: quin etiam ipsis remittere, si sibi magis honorem tribuere quam ab se salutem accipere videantur.

5. Translate into Latin:

(*a*) In the meantime, when the soldiers had come together from the province, Caesar employed them for building a wall and fortifying redoubts, in order that he might easily keep the Helvetii from crossing. When these works were finished, and the envoys came to him, he declared that he could not, consistently with the custom of the Roman people, permit them to go through the province.

(*b*) When Catiline came into the senate he was not greeted by any one of his friends; nay, at his coming, that part of the benches where he took his seat was left bare and unoccupied: for the men of consular rank whom he had often marked out for murder, seemed to be moved by hatred. He ought to have been crushed by the weighty judgment of their silence. With what feelings did he bear that disgrace which had never happened to any one within human memory?

GREEK.

TUESDAY, JUNE 5TH :—AFTERNOON, 2 TO 5.

Examiner, ...THE VERY REV. DEAN NORMAN, D.D.

A.

1. Translate :—Homer, Iliad, Bk. IV. :—

Εἴπερ γὰρ φθονέω τε καὶ εἰῶ διαπέρσαι,
οὐκ ἀνύω φθονέουσ', ἐπειὴ πολὺ φέρτερός ἐσσι.
ἀλλὰ χρὴ καὶ ἐμὸν θέμεναι πόνον οὐκ ἀτέλεστον·
καὶ γὰρ ἐγὼ θεός εἰμι, γένος δ' ἐμοὶ ἔνθεν ὄθεν σοὶ,
καὶ με πρεσβυτάτην τέκετο Κρόνος ἀγκυλομήτης,
ἀμφότερον, γενε ἧ τε καὶ οὔνεκα σὴ παράκοιτις
κέκλημαι, σὺ δὲ πᾶσι μετ' ἀθανάτοισιν ἀνάσσεις.
ἀλλ' ἤτοι μὲν ταῦθ' ὑποείξομεν ἀλλήλοισιν,
σοὶ μὲν ἐγὼ, σὺ δ' ἐμοί· ἐπὶ δ' ἕψονται θεοὶ ἄλλοι
ἀθάνατοι. σὺ δὲ θᾶσσον Ἀθηναίῃ ἐπιτείλαι
ἐλθεῖν ἐς Τρώων καὶ Ἀχαιῶν φύλοπιν αἰνὴν,
πειρᾶν δ' ὥς κε Τρῶες ὑπερκύδαντας Ἀχαιοὺς
ἀρξωσι πρότεροί ὑπὲρ ὅρκια δηλήσασθαι.

B.

Translate :—Odyssey, Book VII.

Κέκλυτε, φαιήκων ἡγήτορες ηδε μέδοντες,
ὄφρ' εἰπω τά με θυμὸς ἐνὶ στήθεσσι κελεύει.
νῦν μὲν δαισάμενοι κατακείετε οἶκαδ ἰόντες·
ἠῶθεν δὲ γέροντας ἐπὶ πλέονας καλέσαντες
ξεῖνον ἐνὶ μεγάροις ξεινίσσομεν, ἠδὲ θεοῖσι
ῥέξυμεν ἱερὰ καλά· ἔπειτα δὲ καὶ περὶ πομπῆς
μνησόμεθ' ὡς χ' ὁ ξεῖνος ἀνευθε πόνου καὶ ἀνίης
πομπῇ ὑφ' ἡμετέρῃ ἣν πατρίδα γαῖαν ἵκηται
χαιρων καρπαλίμως, εἰ καὶ μάλα τηλόθεν ἐστι·
μηδέ τι μεσσηγύς γε κακὸν καὶ πῆμα πάθησι,
πρίν γε τὸν ἧς γάιης ἐπιβήμεναι· ἔνθα δ' ἔπειτα
πείσεται ἄσσα οἱ αἶσα κατακλῶθές τε βαρεῖαι
γειναμένῳ νέσαντο λίνῳ, ὅτε μιν τέκε μήτηρ.

2. (*a*) Point out the Epic forms in the above extracts, and give the equivalent forms in Attic. (*b*) Give the name and scale of the metre, and scan the last four verses of ext. (A), noting any metrical peculiarities. (*c*) Write a note on the Digamma.

3. (*a*) Give as accurately as you can the meaning and derivation of the following epithets:—Βοῶπις, ἀγκυλομήτης, ἀμύμων, ἀδῆλητα, ἀγέλαι, πανώριος. (*b*) Derive, and give the meaning of the following:—τέττα, μήτωρες, δαίφρονα, ἰόμωροι, ἐλατῆρι, ἔρισμα. (*c*) Parse carefully the following:—ὄρσαι, κήρ, διαπέρσαι, ἦξιν, ἄρουν, ῥῆσιν, χαίταις, πάγῃ, ἔδυν, ψεύδεσσι, ὄθεν, ἰφι.

4. (*a*) Translate:—Xenophon, Anabasis, Book I.

Καὶ ἐν τούτῳ τῷ καιρῷ τὸ μὲν βαρβαρικὸν στράτευμα ὁμαλῶς προῄει, τὸ δὲ Ἑλληνικὸν ἔτι ἐν τῷ αὐτῷ μένον συνετάττετο ἐκ τῶν ἔτι προσιόντων. Καὶ ὁ Κῦρος παρελαύνων οὐ πάνυ πρὸς αὐτῷ τῷ στρατεύματι κατεθεᾶτο ἑκατέρωσε ἀποβλέπων εἰς τε τοὺς πολεμίους καὶ τοὺς φίλους. Ἰδὼν δὲ αὐτὸν ἀπὸ τοῦ Ἑλληνικοῦ Ξενοφῶν Ἀθηναῖος ὑπελάσας, ὡς συναντῆσαι, ἤρετο, εἴ τι παραγγέλλει. ὁ δ' ἐπιστήσας εἶπε καὶ λέγειν ἐκέλευε πᾶσιν, ὅτι καὶ τὰ ἱερὰ καλὰ καὶ τὰ σφάγια καλά. Ταῦτα δὲ λέγων θορύβου ἤκουσε διὰ τῶν τάξεων ἰόντος καὶ ἤρετο, τίς ὁ θόρυβος εἴη. Ὁ δὲ [Κλέαρχος] εἶπεν, ὅτι τὸ σύνθημα παρέοχεται δεύτερον ἤδη. Καὶ ὃς ἐθαύμασε τίς παραγγέλλει, καὶ ἤρετο, ὅτι εἴη τὸ σύνθημα. Ὁ δ' ἀπεκρίνατο, ὅτι Ζεὺς σωτὴρ καὶ νίκη. Ὁ δὲ Κῦρος ἀκούσας Ἀλλὰ δέχομαί τε, ἔφη, καὶ τοῦτο ἔστω. Ταῦτα δ' εἰπὼν εἰς τὴν ἑαυτοῦ χώραν ἀπήλαυνε· καὶ οὐκέτι τρία ἢ τέτταρα στάδια διειχέτην τῷ φάλαγγε ἀπ' ἀλλήλων, ἡνίκα ἐπαιάνιζόν τε οἱ Ἕλληνες καὶ προήρχοντο ἀντίοι [ἰέναι] τοῖς πολεμίοις.

(*b*) Translate, Xenophon, Anabasis, Book II:—

(*c*) Καὶ οἱ μὲν ἡγοῦντο, Κλέαρχος μέντοι ἐπορεύετο τὰς μὲν σπονδὰς ποιησάμενος, τὸ δὲ στράτευμα ἔχων ἐν τάξει, καὶ αὐτὸς ὡπισθοφυλάκει. καὶ ἐνέτυγχανον τάφροις καὶ αὐλῶσιν ὕδατος πλήρεσιν, ὡς μὴ δύνασθαι διαβαίνειν ἄνευ γεφυρῶν· ἀλλ' ἐποιοῦντο διαβάσεις ἐκ τῶν φοινίκων οἱ ἦσαν ἐκπεπτωκότες, τοὺς δὲ καὶ ἐξέκοπτον. Καὶ ἐνταῦθα ἦν Κλέαρχον καταμαθεῖν ὡς ἐπεστάτει, ἐν μέν τῇ ἀριστερᾷ χειρὶ τὸ δόρυ ἔχων, ἐν δὲ τῇ δεξιᾷ βακτηρίαν· καὶ εἴ τις αὐτῷ δοκοίη τῶν πρὸς τοῦτο τεταγμένων βλακεύειν, ἐκλεγόμενος τὸν ἐπιτήδειον ἐπαισεν ἄν, καὶ ἅμα αὐτὸς προσελάμβανεν εἰς τὸν πηλὸν ἐμβαίνων. ὡς τε πᾶσιν αἰσχυνην εἶναι μὴ οὐ συσπουδάζειν.

5. Translate the following short sentences giving any rule exemplified, or any special meaning, in the case of any particular words:—(*a*) δῆλος ἦν, ἐπιθυμῶν μὲν πλουτεῖν ἰσχυρῶς. (*β*) ἡμέρας καὶ νυκτὸς ἄγων ἐπὶ τοὺς πολεμίους. (*γ*) Ἄρχειν δὲ καλῶν μὲν καὶ ἀγαθῶν δυνατὸς ἦν. (*δ*) Οὗτοι ἔλεγον ὅτι Κῦρος τέθνηκεν, Ἀριαῖος δὲ πεφευγὼς εἴη. (*ε*) Δῆλον δὲ τοῦτο τῇ ὑστεραίᾳ ἐγένετο.

6. (*a*) Give the uses of the middle voice and of the optative mood. (*b*) Give Greek Homeric epithets, with English equivalents for the sea,

for any of the gods or human beings. (*c*) Write the Attic forms of, or equivalents for *Ἄμμι, σεο, σέθεν, οἷος, ποτί, τράφεν, ἴμεν, τίπτ' περιέμμεναι, προθέωσι, ἔβαν,* (*d*) Give the force of the adverbial suffix *φι* attached in Homer to substantives. (*e*) Mention the Homeric use of reflexive pronouns.

7. (*a*) Name the characteristic letter of the 1st Aorist in each of the three voices. (*b*) Give Greek for "at home, homewards, and from home." (*c*) Name the tense in the case of the following: *ἐάλων, ἔγνων, ἐτλην, ἔπτην, ἐρθην.* State the verbs with which they are connected, and the English equivalents.

8. (*a*) What tenses in Greek denote single acts, continuous action and acts of which the result is permanent? (*b*) Write the 1st person sing. of the principal tenses of *ἑυρίσκω, ἀπόλλυμι, ἵστημι, πάσχω, πίπτω, ἔχω, κτείνω, ὁράω.*

9. What prepositions govern the genitive case, what the dative, and what the accusative?

10. Write down the genitive and dative sing. and plur. of *κνών, ἱππεύς, θυγάτηρ, δορύ,* the nominative singular and plural of *χερσίν, ποσί περσῶν,* and give the positive of *πλειστος.*

11. Put into Greek: (1) If they are proved to be good citizens, I think that you ought to praise them. (2) If the Athenians inhabited an island, they would have had it in their power to inflict injuries, without suffering any, so long as they were masters of the sea. (3) Do not plot against the captives when absent, and acquit them when present. (4) Was it better for me to transgress the laws during the democracy, or during (the rule of the) thirty Tyrants? (5) He said that they sailed away from a desire to make money, (6) He showed that there was no olive tree on the estate and produced witnesses.

Note.—Candidates for matriculation in Greek may substitute either of the following passages:

I. Translate: Homer, Iliad. Bk. VI.

Ὣς ἄρα φωνήσας ἀπέβη κορυθαίολος Ἕκτωρ.
αἶψα δ' ἔπειθ' ἵκανε δόμους εὐναιετάοντας,
οὐδ' εὑρ' Ἀνδρομάχην λευκώλενον ἐν μεγάροισιν

ἀλλ' ἤγε ξὺν παιδὶ καὶ ἀμφιπόλῳ ἐυπεπλῳ
πύργῳ ἐφεστήκει γοόωσά τε μυρομένη τε.
Ἕκτωρ δ' ὡς οὐκ ἔνδον ἀμύμονα τέτμεν ἄκοιτιν,
ἔστη ἐπ' οὐδὸν ἰὼν, μετὰ δὲ δμωῇσιν ἔειπεν·
„εἰ δ' ἄγε μοι, δμωαι, νημερτέα μυθησασθε.
πῇ ἔβη Ἀνδρομάχη λευκώλενος ἐκ μεγάροιο
ἠέ πῃ ἐς γαλόων ἢ εἰνατέρων ἐυπεπλων,
ἦ ἐς Ἀθηναίης ἐξοίχεται, ἐνθα περ ἄλλαι
Τρωαὶ ἐυπλόκαμοι δεινὴν θεὸν ἱλάσκονται;"
τὸν δ' αὖτ' ὀτρηρὴ ταμίη πρὸς μῦθον ἔειπεν·
Ἕκτορ, ἐπεὶ μάλ' ἄνωγας ἀληθέα μυθήσασθαι,
"οὔτε πῃ ἐς γαλόων οὔτ' εἰνατέρων ἐυπέπλων,
οὔτ' ἐς Ἀθηναίης ἐξοίχεται, ἔνθα περ ἄλλαι
Τρωαὶ ἐυπλόκαμοι δεινὴν θεὸν ἱλάσκονται,
ἀλλ' ἐπὶ πύργον ἔβη μέγαν Ἰλίου, οὕνεκ' ἄκουσεν
τείρεσθαι Τρῶας, μέγα δὲ κράτος εἶναι Ἀχαιῶν.
ἡ μὲν δὴ πρὸς τεῖχος ἐπειγομένη ἀφικάνει,
μαινομένῃ ἐικυῖα. φέρει δ' ἅμα παῖδα τιθήνη,"

(a) Write out the Attic forms of any four of these words: *μένῃσι, μιν, πυλάων, ἔειπεν, μεγρὰροιο, ἐὺ, γοόωσα.* *(b)* Give the root, tense and formation of any five of the following verbs: *βεβρωκώς, δέδορκεν, πέπυστο, κέκλετο, τέτμεν, ἄνωγας. ἀπέβη.* *(c)* Give the meaning and derivation: *ἱππόδαμος, τρίποδα, γλαυκῶπις, μενεπτόλεμος. τηλεκλειτοί, ἄμβατος, ἄσβεστον.* *(d)* Scan the first four lines. *(e)* What is the common ending of the dat. plur. of the first declension in Homer?

II. Translate: Xenophon, Anabasis, Bk. IV.

(1) *Ταύτην δ' αὖ τὴν ἡμέραν ηὐλίσθησαν ἐν ταῖς κώμαις ταῖς ὑπὲρ τοῦ πεδίου τοῦ παρὰ τὸν Κεντρίτην ποταμόν, εὖρος ὡς δἰπλεθρον, ὃς ὁρίζει τὴν Ἀρμενίαν καὶ τὴν Καρ-*

δούχων χώραν. καὶ οἱ Ἕλληνες ἐνταῦθα ἀνεπαύσαντο ἄσμενοι ἰδόντες πεδίον· ἀπεῖχε δὲ τῶν ὀρέων ὁ ποταμὸς ὡς ἓξ * ἑπτὰ στάδια τῶν Καρδούχων. Τότε μὲν οὖν ηὐλίσθησαν μάλα ἡδέως καὶ τἀπιτήδεια ἔχοντες καὶ πολλὰ τῶν παρεληλυθότων πόνων μνημονεύοντες. ἑπτὰ γὰρ ἡμέρας, ὅσασπερ ἐπορεύθησαν διὰ τῶν Καρδούχων, πάσας μαχόμενοι διετέλεσαν, καὶ ἔπαθον κακὰ ὅσα οὐδὲ τὰ σύμπαντα ὑπὸ βασιλέως καὶ Τισσαφέρνους. ὡς οὖν ἀπηλλαγμένοι τούτων ἡδέως ἐκοιμήθησαν.

(2) Ἐντεῦθεν ἐπορεύθησαν διά Χαλύβων σταθμοὺς ἑπτά παρασάγγας πεντήκοντα. οὗτοι ἦσαν ὧν διῆλθον ἀλκιμώτατοι, καὶ εἰς χεῖρας ἦεσαν. εἶχον δὲ θώρακας λινοῦς μέχρι τοῦ ἤτρου, ἀντὶ δὲ τῶν πτερύγων σπάρτα πυκνὰ ἐστραμμένα. Εἶχον δὲ καὶ κνημῖδας καὶ κράνη καὶ παρὰ τὴν ζώνην μαχαίριον ὅσον ξυήλην Λακωνικήν, ὧν κρατεῖν δύναιντο· καὶ ἀποτέμνοντες ἂν τὰς κεφαλὰς ἔχοντες ἐπορεύοντο· καὶ ᾖδον καὶ ἐχόρευον, ὁπότε οἱ πολέμιοι αὐτοὺς ὄψεσθαι ἔμελλον. εἶχον δὲ καὶ δόρυ ὡς πεντεκαίδεκα πηχῶν, μίαν λόγχην ἔχον.

(*a*) Explain the case of εὖρος, *δίπλεθον*, τῶν Καρδούχων (in the sentence commencing with ἀπεῖχε), τούτων, ξυήλην. (*b*) Give the derivation and original meaning of ηὐλίσθησαν. (*c*) ὧν.....δύναιντο: why the optative? (*d*) Distinguish λόγχη and δόρυ. (*e*) Give the verbal stem and principal parts of ἀπηλλαγμένοι, εἶχον, δύναιντο, ᾖδον.

FRENCH.

JUNE 1ST:—AFTERNOON, 2 TO 5.

Examiner, ... { P. J. DAREY, LL.D., Officier d'Acad.
REV. J. L. MORIN, M.A.

1. Translate:

(*a*) *Cléonte.* Monsieur, je n'ai voulu prendre personne pour vous faire une demande que je médite il y a longtemps. Elle me touche assez pour m'en charger moi-même: et sans autre détour, je vous dirai que l'honneur d'être votre gendre est une faveur glorieuse que je vous prie de m'accorder.

Monsieur Jourdain. Avant que de vous rendre réponse, monsieur, je vous prie de me dire si vous êtes gentilhomme.

Cléonte. Monsieur, la plupart des gens, sur cette question, n'hésitent pas beaucoup. On tranche le mot aisément. Ce nom ne fait aucun scrupule à prendre, et l'usage aujourd'hui semble en autoriser le vol. Pour moi je vous l'avoue, j'ai les sentiments sur cette matière un peu plus délicats.

Le Bourgeois Gentilhomme, Acte III., Scène XII.

(*b*) *Covielle, bas, à Madame Jourdain.* Il y a une heure, madame, que nous vous faisons signe. Ne voyez-vous pas bien que tout ceci n'est fait que pour nous ajuster aux visions de votre mari, que nous l'abusons sous ce déguisement, et que c'est Cléonte lui-même qui est le fils du Grand-Turc?

Monsieur Jourdain. Ah! voilà tout le monde raisonnable. (*A Madame Jourdain*). Vous ne vouliez pas l'écouter. Je savais bien qu'il vous expliquerait ce que c'est que le fils du Grand-Turc.

Madame Jourdain. Il me l'a expliqué comme il faut, et j'en suis satisfaite. Envoyez quérir un notaire.

.....Acte V., Scène VII.

2. Translate at sight into English:

L'homme n'est pas fait seulement pour connaître et aimer le beau dans les œuvres de la nature, il est doué du pouvoir de le reproduire. A la vue d'une beauté naturelle, quelle qu'elle soit, physique ou morale, son premier besoin est de sentir ou d'admirer. Il est pénétré, ravi, et quelquefois aussi accablé du sentiment de la beauté. Mais quand le sentiment est énergique, il n'est pas longtemps stérile. Nous voulons revoir, nous voulons sentir encore ce qui nous a causé un plaisir si vif, et pour cela nous tentons de faire revivre la beauté qui nous a charmé, non pas telle qu'elle était, mais telle que notre imagination nous la représente.

3. Translate at sight into French:

A merchant who had been to the fair was riding home with a bag full of money. As it was raining in torrents, he was soon wet to the skin, and he complained bitterly that Providence was treating him so badly.

Arriving at a dark wood, he saw a highwayman by the roadside watching him, and taking aim at him. But the gun would not go off. be-

cause the rain had wetted the powder. The merchant, who was well-nigh dying with fright, put spurs to his horse, and having made good his escape said to himself, it was very wrong of me to complain of Providence.

4. Write a short sketch of the play *Le Bourgeois Gentilhomme* and of the life of its author.

5. Write the first person singular and plural of all the simple tenses of *mouvoir, acquérir, s'en aller, vendre.*

6. Write correctly the following Past participles: Ils se sont *aimé* et ils se le sont *dit*. C'est une belle chanson, je l'ai *entendu* chanter. Il nous a *vu* et nous a *parlé*. Give the rules.

7. Where and when was Jeanne d'Arc born? Who was the king in France at that time? Where and why was she put to death? What year? What was she accused of?

GEOMETRY.

MONDAY, JUNE 4TH :—MORNING, 9 TO 12.

Examiners, ... { REV. PRINCIPAL ADAMS, D.C.L
H. M. TORY, B.A.
F. TOPP, B.A.

Answer eight out of twelve; the *first five* and any *other three*.

1. Prove that in any triangle: (*a*) the greater side has the greater angle opposite to it; (*b*) the greater angle is subtended by the greater side; (*c*) the difference of any two sides is less than the third side.

2. A straight line AB is divided at C. Prove that sum of the sq. on AB, BC is equal to twice rectangle AB. BC together with square on AC, and show how this gives the square of the difference of two straight lines.

3. Prove that any chord of a circle being taken, the angles in the segment on the same side of the chord are equal, and the angles in the segments on opposite sides of the chord are supplementary, *i.e.*, equal to two right angles.

4. To inscribe a regular pentagon in a given circle.

5. Similar triangles are to one another as the squares of their homologous sides.

6. The square on the hypotenuse of a right-angled triangle is equal to sum of squares on sides containing the right angle.

7. To construct a right-angled triangle having given the perimeter and one acute angle.

8. (*a*) To make a square equal to a given rectilineal figure: also (*b*) to make a square equal to the difference of two squares.

9. The angle between a chord and tangent of a circle equals the angle in the alternate segment.

10. None but equilateral parallelograms can be described about a circle, and none but equiangular parallelograms can be inscribed in a circle.

11. Show how to describe a circle to touch one side of a triangle and the other two sides produced. How many such circles can be drawn?

12. AB, BC are two straight lines, (*a*) find a third proportional, (*b*) also find a mean proportional, (*c*) and the ratio of these two proportionals.

ALGEBRA.

FRIDAY, JUNE 1ST :—MORNING, 9 TO 10·30.

Examiners, ... { REV. PRINCIPAL ADAMS, D.C.L. / H. M. TORY, B.A. / F. TOPP, B.A.

1. Shew that $\dfrac{(xy^2)^{\frac{1}{3}} - (x^2y)^{\frac{1}{3}} + x}{x + y} = \dfrac{x^{\frac{1}{3}}}{x^{\frac{1}{3}} + y^{\frac{1}{3}}}$

and obtain the square root of $\dfrac{a^2c}{b} + cf + 2ac\sqrt{\dfrac{f}{b}}$

2. If A, G and H, be the arithmetical, geometrical and harmonical means of any two numbers, shew that they are in geometrical progression.

The arithmetical mean of two numbers is 9 and the harmonical mean is 8: Find the number.

3. Solve the equation $x^2 = ax + by$
$y^2 = ay + bx$

4. Solve the equation
$mgx^2 - mnx + pqx - np = 0$, and shew that the product of the roots is $\dfrac{np}{mg}$

5. Find the mean proportional between $\dfrac{x+y}{x-y}$ and $\dfrac{x^2-y^2}{x^2y^2}$

6. Find two numbers in the ratio of 4 to 5 such that if six be added to the greater number and one to the smaller, the square roots of the resulting numbers shall differ by one.

7. Simplify $\dfrac{1}{1-\dfrac{1}{1+x}} + \dfrac{1}{1-\dfrac{1}{1-x}}$, and

shew that $\dfrac{a+c}{(a+b)(x-a)} - \dfrac{b+c}{(a-b)(x-b)} = \dfrac{x+c}{(x-a)(x-b)}$

TRIGONOMETRY.

MONDAY, JUNE 4TH :—AFTERNOON, 2 TO 5.

Examiners, { REV. PRINCIPAL ADAMS, D.C.L.
H. M. TORY, B.A.
F. TOPP, B.A.

1. Express in degrees and decimals of a degree the unit of circular measurement of angles.

2. Trace the changes of sign of the tangent of an angle as the angle increases from 0 to 360 degrees.

3. Show that

(1) $\dfrac{\sec\ \theta}{\operatorname{cosec}\theta} + \dfrac{\operatorname{cosec}\ \theta}{\sec\ \theta} = \sec\theta \,.\, \operatorname{cosec}\theta.$

(2) $\tan^2\theta - \sin^2\theta = \tan^2\theta \,.\, \sin^2\theta$

(3) $(\operatorname{cosec}\theta - \operatorname{cotan}\theta)^2 = \dfrac{1-\cos\theta}{1+\cos\theta}$

4. Prove that

(1) $\sin(A-B) = \sin A\cos B - \cos A \,.\, \sin B$

(2) $\cos(A-B) = \cos A\cos B + \sin A \,.\, \sin B$

(3) $\tan(A-B) = \dfrac{\tan A - \tan B}{1+\tan A\tan B}$

(4) $\tan 15^\circ = 2 - \sqrt{3}$

5. Define a logarithm. State and prove the rules for performing multiplication and division by means of logarithms. Solve for x in the equation

$6^x = 25\cot 135^\circ\ 25'\ 25''$

6. In any triangle show that

$$\tan\frac{A-B}{2} = \frac{a-b}{a+b}\cot\frac{C}{2}$$

If $a = 30$ ft. $b = 40$ ft. $C = 25^\circ\ 30'$, find A, B and c.

7. Prove that (1) $\sin\frac{1}{2}A = \sqrt{\dfrac{(s-b)(s-c)}{bc}}$, where $2s = a+b+c$

(2) $\tan A + \tan B + \tan C = \tan A \,.\, \tan B \,.\, \tan C$,
A, B and C being the angles of a triangle.

8. At a distance of 200 yards from the foot of a church tower, the angle of elevation of the top of the tower was found to be 30°, and of the top of the spire of the tower 32°. Find the height of the tower and of the spire.

ENGLISH LANGUAGE.

LOUNSBURY: *History of the English Language.*
MASON: *English Grammar.*

COMPOSITION.

FRIDAY, JUNE 8TH:—AFTERNOON, 2 TO 5.

Examiners, ... JOHN L. DAY, B.A.
P. T. LAFLEUR, M.A.
REV. PRINCIPAL ADAMS, LL.D.
REV. J. HEPBURN, M.A.
REV. R. HEWTON, M.A.
REV. M. O. SMITH, B.D.

I.

1. With what results, philological and historical, has the study of the Indo-European languages been attended? Name these languages with their modern representatives.

2. State the main differences between Anglo-Saxon and Modern English.

3. In what connection is mention made of: Codex Exoniensis, Polychronicon, Layamon's Brut, Toxophilus?

4. Historical notes on the relative and personal pronouns (with special reference to the *third* personal pronoun).

5. The declension of the noun and the inflection of the verb in Middle English.

6. As illustrative of what principles are these words adduced: vox, chirche, the own, elder, I is, "the *most unkindest* cut of all," the land is *ours*?

7. The substance of Lounsbury's remarks on four of the following subjects:

(*a*) The imperfect Anglicization of foreign nouns.

(*b*) The loss of native words.

(*c*) The formation of the passive voice in Anglo-Saxon.

(*d*) Plural forms in the imperative mood.

(*e*) Vowel-change and vowel-modification.

(*f*) The linguistic situation before the conquest.

8. What inflections did the adjective formerly possess? Illustrate your answers by the use of *blind*.

9. Write the earlier forms of the following: my, tell (infin.), grown, could, will, climbed.

10. Trace the development of the genitive case from its early declensional form to its substitution by the apostrophe, and state the periods in which the respective changes were effected.

II.

11. State the various forms of the adverbial adjunct.

12. (*a*) What reasons are there for regarding the article as an adjective. (*b*) Derive: metaphysics, viscount, premature, surgery, parsley, kerchief, alive, retrograde.

13. (*a*) Which are the principal relations indicated by prepositions? (*b*) Short notes on: about, lest, "but an if," by, of and off, but (prep. and conj.). (*c*) Define: Paralepsis, anapaest, solecism, syncope, litotes.

14. Analysis:

"Strange as it may seem to find a song-writer put forward as an active instrument of union among his fellow-Hellenes, it is not the less true that those poets whom we have briefly passed in review, by enriching the common language and by circulating from town to town, either in person or in these compositions, contributed to fan the flame of Pan Hellenic patriotism at a time when there were few circumstances to co-operate with them, and when the causes tending to perpetuate isolation seemed in the ascendant."

Grote.

III.

15. A short composition on one of the following:

Ideals of character.
Architecture.
Carlyle's works.

ENGLISH LITERATURE.

WEDNESDAY, JUNE 6TH:—AFTERNOON, 2 TO 5.

Examiner,..... .....REV. PRINCIPAL ADAMS, LL.D.

(Only two questions to be answered from each division.)

A. General.

1. Give a short account of the life, works, style and influence of
   (*a*) Alexander Pope.
   (*b*) Joseph Addison.

2. Give a sketch of the poets Cowper and Burns with dates and criticisms.

3. Mention a work of Thomson, Fielding, Hume, Gray, Burke with full name and dates. Who wrote Wealth of Nations, Decline and Fall of the Roman Empire, Lycidas, Adonais, Sohrab and Rustum, Endymion, Romola? Give dates of life.

B.

4. Mention six of Shakespeare's contemporaries and two works of *one* of the six. Who was called 'Shakespeare's teacher'? Quote phrases to shew that "we think Shakespeare" as well as read him.

5. Give a complete and concise sketch of life, works and character of Edmund Spenser.

6. Name the causes and the characteristics of the greatness of the Elizabethan age.

C.

7. Give a sketch of the Argument of Book II, and quote any ten consecutive lines, or twenty lines in detached pieces.

8. Give a list of heathen divinities from Book I, and a remark about each.

9. Write a concise and apposite comment on the following expressions, as found in Books I and II: 'Bestal Gods' 'Tartarean' 'Cyphaltic pool' 'Heaven's Highth' 'Doric Pillars' 'Lemnos' 'Michael' 'Engines' 'Synod of Gods' 'Panim Chivalry' 'Alcides' 'Taurus' 'Aeta'

EUROPEAN HISTORY.

THURSDAY, JUNE 7TH :—AFTERNOON, 2 TO 5.

Examiner,.....P. T. LAFLEUR, M.A.

1. Give an account, with dates, of the great expedition of Xerxes against Greece, and discuss fully any *one* of the most important contests in it. Explain the immediate results on Greece and on Persia.

2. State the remote and the immediate causes of the Peloponnesian war; explain, with some detail, any *one*. Show how the final settlement affected the two leading powers engaged therein.

3. Give some account of: Pompey the Great, Cato the Censor, Mark Antony, Augustus Caesar. Give dates.

4. Explain the nature of: Proscriptions, the Patrician order, Freedmen, Tribunes of the People.

5. Give some idea (if possible, with the help of a map) of the extent of the Roman empire at the time of the death of Julius Caesar.

Shew the principal differences between the Reformation as it took place in England, and the analogous movement in any country of Europe.

7. State clearly the part played in English History by each of the following: Thomas More, Cranmer, Laud, Monk, Raleigh, Bacon.

8. Give an account of: (*a*) the Petition of Right, (*b*) the Trial and Execution of Charles the First.

PHYSICS.

FRIDAY, JUNE 8TH:—MORNING, 9 TO 12.

Examiner,.....JOHN COX, M.A.

1. Two men carry a ladder 20 feet long and weighing 60 lbs. by its ends. How much does each man carry if the centre of gravity is 7 feet distant from one end?

2. A particle acquires uniformly a velocity of 1,000 miles an hour in minutes. Compare its acceleration with that of gravity.

3. Two weights of 2 kilograms and 1.2 kilograms respectively are hung by a light string over a smooth pulley and let go. Find the acceleration and the space described in 1 second

4. A man weighing 80 k. climbs a mountain at the rate of 300 metres per hour. Find roughly the horse-power he is exerting.

5. Explain the principle of the barometer. How would the reading be affected by (*a*) slanting the tube, (*b*) a rise of temperature, (*c*) inverting over it a tall jar of coal gas, (*d*) allowing a small bubble of air to enter the tube.

6. State the laws of equilibrium of a body floating in water. A substance weighs 10.32 grams in air and 4.18 grams in water. What is its specific gravity?

7. Distinguish between conduction and convection of heat. Which is more nearly concerned with ventilation? Explain how mines are ventilated.

8. Find the volume which 1,000 cc. of gas at 17° c. will occupy at the same pressure when brought to 17° F.

9. Explain the construction of an astronomical telescope, drawing a pencil of rays passing through one from a *point* to its image.

10. Draw in plan a lamp, slit, and prism arranged to form a spectrum on a screen, so as to indicate the position of the principal colors.

11. Describe a gravity (Daniell) cell. If its E.M.F. is 1.048 volts, and resistance 2 ohms: what current will it send through a circuit of 8 ohms resistance?

12. Describe and explain the action of a telephone, stating carefully those principles in the theory of electricity and sound on which it depends.

BOTANY.

THURSDAY, JUNE 7TH:—9 TO 12 A.M.

Examiner,.....D. P. PENHALLOW, B.Sc.

1. Give a full account of the structure of a wheat seed, and show what changes take place in germination.

2. State the characteristics of an air plant as to its habits of growth and food supply. Give an example.

3. Explain concisely the structure and function of a bud, and show how many kinds may be distinguished as to position.

4. Give a concise account of the structure of a leaf, and show what functions it has to perform.

5. Give three examples of special adaptation, in flowers, to cross fertilization, showing how this is carried out.

6. Give in full the leading characteristics of an endogenous plant.

7. Explain the structure of a pollen grain, show what function it performs, and how.

8. Outline the principal characteristics of a gymnosperm. Example.

9. Give a full description of specimen No. 1, with family, genus and species.

10. Describe fully specimen No. 2.

11. Refer No. 3 to its systematic position, and show what structures are represented.

ORTHOGRAPHIC PROJECTION.

FRIDAY, JUNE 8TH:—9 TO 12 A.M.

Examiner,.....C. H. MCLEOD, MA. E.

1. There is a pentagonal prism of one inch edge. Draw the section caused by a plane inclined at 45° to one of the faces of the prism and cutting the same at right angles to its length.

2. A cylinder 2 in. in diameter and 3 in. in length has one end in the horizontal plane, and is penetrated by a square prism 4 inch long and 1.4 inch side. Their axes meet at right angles, 1.5 inch above the horizontal plane and one diagonal of the end of the prism is vertical. Give plan and elevation showing the line of penetration, when the axis of the prism is parallel to the vertical plane.

(*a*) Show the development of the cylinder and the penetration lines.

3. The base of a pyramid is an equilateral triangle of 2 in. side, and the inclined edges measure 3 in. Find the plan and elevation when an edge of the base is at 45° to the vertical plane and the axis vertical. (*a*) Find the plan and elevation when the axis is at 60° to the horizontal.

4. There is a box 4 ins. long, 3 ins. wide and 2 ins. deep (inside measurements), made of wood $\frac{1}{4}''$ thick, one of the larger sides is in the horizontal plane. Draw its plan and elevation when the cover is opened at an angle of 30° and the edges of the box make angles of 45° with the vertical plane. The box is open towards the observer.

EXAMINATIONS FOR ASSOCIATE IN ARTS AND SCHOOL CERTIFICATES, 1894.

FRENCH.

FRIDAY, JUNE 1ST:—AFTERNOON, 3 TO 5.

Examiners, ... { P. J. DAREY, LL.D., Officier d'Acad.
REV. J. L. MORIN, M.A.

The candidate will please write on different papers the parts marked A from those marked B.

A.

La vie.

1. Translate: Cette vie, je l'ai en grande partie parcourue; j'en connais les promesses, les réalités, les déceptions. Vous pourriez me rappeler comment on l'imagine; je veux vous dire comment on la trouve, non pour briser la fleur de vos nobles espérances (la vie est parfaitement bonne à qui en connait le but), mais pour prévenir des méprises sur ce but même, et pour vous apprendre, en révélant ce qu'elle peut donner, ce que vous avez à lui demander et de quelle manière vous devez vous en servir.

2. Translate: It is believed long, young pupils; it is very short; for

youth is only the slow preparation for it, and old age only its slower destruction. In seven or eight years you shall have foreseen all the fruitful ideas of which you are capable, and there will remain to you only about twenty years! that is an eternity for you, and in reality a moment! Believe those for whom those twenty years are no longer: they pass like a shadow, there remain of them only the works with which one has filled them.

3. Translate: *I must go to school.* Explain the two translations you may give of that sentence.

Write in full the *Preterite definite*, the *Future* and the *Subjunctive present* of *s'en aller, mourir, s'apercevoir* and *mettre.*

4. What tenses are formed from the Participle present? How are they formed?

B.

5. State two cases where the French use *de* to translate the partitive article with plural nouns. Give examples.

6. Write the plural of: *émail, carnaval, bail, bal, verrou.* Give the rules.

7. Give the two forms for the masculine singular in French of *new, soft* and *old.* When do you use the one and when the other? Give an example of each.

8. Translate: *A man whose brother you know.* Explain the right construction of the French sentence. How does it differ from the English

9. Say in French: Did you go to the bookseller for the books? Did you pay him for them? Yes, I did. (Give the two answers to this last sentence.) In what street do you live? Are the houses in this town built in stone. No, they are built in bricks. *And in English:* Vous êtes-vous bien porté l'hiver dernier? Non, j'ai eu une mauvaise toux et j'ai été enroué pendant longtemps; cependant j'ai suivi mes classes assez régulièrement.

MATRICULATION EXAMINATION, 1894.

FRIDAY, JUNE 1ST:—AFTERNOOON, 2 to 5.

Examiners, ... { P. J. DAREY, LL.D., Officier d'Acad.
J. L. MORIN, M.A.

The student will please write the parts marked *A* on different papers from those marked *B.*

A

1. What is meant by *contraction of the article?* When does it take place? Give three examples.

2. Translate into French :—The generals have gray horses, cows, birds, cloaks. Give the rules to form the plural of each of those nouns.

3. What are the adjectives which require the doubling of the last consonant before adding *e* to form the feminine? Give four examples.

4. What are the three different ways to write *quelque?* State when they are to be used. Give examples.

5. Translate :—Thy desk and that of your friend. Give these keys and those of our house to my uncle. I prefer this carpet to that one. I have lost your gloves, take these. Do you see me? She does not see thee. Have you any money? Give it to me; lend it to us. I will neither give it to thee nor lend it to you. Take away my plate and leave my sister's on the table. I have lost my needle and Mary's. He who dines with us is my cousin's best friend. She who is virtuous is happy. He whom we adore is almighty.

B

6. State the orthographical changes of verbs ending in *—ger, —cer, —eler, —eter.*

7. Conjugate in full the Subjunctive present, the Future, the Past definite of *manger, boire, dormir, faire.*

8. Translate into English :—

Les Suédois, étant enfin maîtres de la maison, renfermèrent et barricadèrent encore les fenêtres. Ils ne manquaient point d'armes : Une chambre basse, pleine de mousquets et de poudre, avait échappé à la recherche tumultueuse des janissaires ; on s'en servit à propos : les Suédois tiraient à travers les fenêtres, presque à bout portant, sur cette multitude de Turcs, dont ils tuèrent deux cents (*a*) en moins d'un demi-quart-d'heure. Le canon tirait contre la maison ; mais les pierres étant fort molles (*b*), il (*c*) ne faisait que des trous et ne renversait rien.

VOLTAIRE, *Charles XII. à Bender*

(*a*) Why is cents written with an *s?* Give the rule fully.

(*b*) What part of speech is *fort?* Why is it singular?

(*c*) What part of speech is *il?* To what does it refer?

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M2
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